Registered at the General Post Office, Melbourne, for transmission by post as a newspaper.

The Oldest Established Australasian Fruit Monthly.

THE FRUIT WORLD & "Market Grower"

IMPERIAL ... 24 MAR 1938 ... INSTITUTE

ESTABLISHED 38 YEARS.

Circulates to Growers of Dried, Canned, Deciduous, and Citrus Fruits, Market Gardeners, etc. Throughout Australia, New Zealand and abroad.

TELEPHONE NUMBERS: MELBOURNE, F 2656; SYDNEY, M 6751.

Vol. XXXIX. No. 2. FEBRUARY 5th, 1938 Price 6d.

Apple Orchards in Tasmania.

The "LIGHTNING" TRIPLEX
Fruit Grader
A Combination of All Graders with Numerous Improvements
As An Independent Section Grader—The Triplex Excels :—
◆ 1—BECAUSE THE FRUIT IS STEADIED BEFORE SIZING
◆ 2—BECAUSE MISSHAPEN FRUIT IS PREVENTED FROM SIZING INCORRECTLY
◆ 3—BECAUSE FRUIT JUST READY TO SIZE IS PREVENTED FROM PINCHING
The "LIGHTNING" FRUIT GRADER CO. was the first manufacturer of Fruit Graders in Australia and holds every worth while patent; therefore built into every "Lightning" machine is ANY and EVERY feature of any other Grader PLUS many vital non-bruising essentials.
IMPLEMENTS ! ! See "LIGHTNING'S" New Specialised Orchard Implements
Designed and built for the discriminating buyer who selects his Implements.
The "LIGHTNING" Fruit Grader Co., 517 Albion St., West Brunswick, N.12, Vic., Australia.
AGENTS IN ALL STATES 'Phone: FW 4181 (2 lines).

BENDER & CO. PTY. LTD.

100 Elizabeth Street, Launceston

P.O. Box 394 Launceston

And at Huonville

Telegrams & Cables "Benco"

Shipping Agents - Cool Storage Proprietors - Fruit Exporters

(Accommodation 25,000 Cases)

Agents for Cooper's Famous Sprays. Direct Importers of Apple Wrapping Paper, Pine Cases, Etc.

WE WANT TO:

Supply your Orchard Requisites. — — — Assist in Marketing your Crop.

Blyth's "BLUE BELL" Quality Sprays

MADE IN AUSTRALIA

For Twenty-five Years "BLUE BELL" Arsenate of Lead has Proved a Faithful Friend to Growers.

Extract from "Better Fruit" (U.S.A.), Spraying and Pest Control Edition, February, 1937.

CODLIN MOTH CONTROL

By Arthur D. Borden, University of California.

"LEAD ARSENATE is our standard spray material to-day. None of the many substitutes which have been tested have proved to be as toxic and effective in control."

Arsenate of Lead (Paste or Powder), Lime Sulphur, Special Copper Mixture (Fungicide), Spray Spreader, White Oil, Nicotine Sulphate, Red Oil, etc.

Blyth Chemicals Ltd. 31 Queen Street - Melbourne

Phone Cent. 756

INTERSTATE AGENTS—

Tasmania: W. D. Peacock & Co. Ltd., Princes Wharf, Hobart. H. Jones & Co. Ltd., Charles St., Launceston.
New South Wales: Lanes Ltd., 69 Abercrombie St., Sydney.
Queensland: A.C.F. and Shirleys Fertilizers Ltd., Brisbane.
South Australia: George Wills & Co. Ltd., Gilbert House, Gilbert Place, Adelaide.
Western Australia: F. H. Faulding & Co. Ltd., 313 Murray Street, Perth.

Works: PRAHRAN GROVE, ELSTERNWICK, VICTORIA — L 1468.

THE PIG PEN

ACCOMMODATION FOR PIGS.

Some Essential Requirements.

Adequate and hygienic accommodation is an important factor in profitable pig-raising, says the "N.S.W. Agricultural Notes," and adds that whatever the type of piggery, attention must be paid to the following points:—

1. Sties should, if possible, face the north or east, so that they will get the full benefit of the sunlight. Sunlight is a most efficient germicide, and is a great help in keeping the sties sweet and sanitary.

2. Sties should be built on rising ground to ensure good drainage. This does not necessarily imply that they should be placed on the top of a hill, where the animals would be exposed to every wind that blows.

3. The roof should be sufficiently high to admit of the sty being cleaned easily. The idea of keeping a pigsty clean is revolutionary to some farmers, but disease and filth are associated as a rule, and cleanliness is essential to the preservation of health.

4. The walls should be smooth, so that there is no harbour for animal parasites. On this account walls of split bush timber are objectionable.

5. Allowance must be made for plenty of sunlight and fresh air.

6. The walls must be impervious to the wind, so that the sty is not draughty.

7. The floor should be impervious to moisture. The common custom of allowing the pigs to sleep on the earth, while doing away with the necessity for bedding, has much to condemn it. The earth is easily rooted up, is damp and cold in winter, and is soon saturated with filth. Concrete makes the most sanitary floor, but, as it is cold and hard, a sleeping platform of wood is necessary with it. If this is made sufficiently light, it is easily removed for the purpose of cleaning the sty. A floor made of hardwood, well joined and raised above the ground level, is quite satisfactory; but floors made of slabs laid on the ground are little better than the earth itself.

If the points enumerated above are attended to the pigs will have dry, clean housing in favorable situations, free from draughts, and yet with abundance of fresh air.

MILK FOR PIGS.

Value Proved in Denmark.

On the basis of the quantity of milk delivered to the dairies in Denmark for butter-making, the annual production of skimmed milk is approximately 850,000,000 gallons. This statement is made in a joint article in the "London Times," contributed by the Professor of Animal Husbandry at the Royal Veterinary and Agricultural College, Copenhagen, and the secretary of the Union of Danish Co-operative Bacon Factories. They also state that at the utmost 30 per cent, of the quantity named is used for housekeeping purposes and for cheese-making, etc., but not less than 600,000,000 gallons are given to the pigs. Reserving 170,000,000 gallons for sows and sucking-pigs, about 430,000,000 gallons of skimmed milk annually, or 10 gallons a pig, are available for bacon pigs—that is to say, an average of at least 10 gallons of milk for each pig from the time it is weaned till it is delivered to the bacon factory. It is therefore obvious that practically every Danish pig breeder is feeding bacon pigs on milk.

SUMMER COMFORT FOR PIGS.

Two Important Requirements.

During the Summer months the provision of shade for pigs is very essential. The ordinary sty, especially if it has an iron roof, is very hot, and some other shade is necessary in the heat of the day. If no trees are present a wooden shed will answer the purpose. Another important aid to the health and comfort of swine is the provision of a bath in which they can lie in hot weather. So advises a writer in N.S.W. Agricultural Notes.

To wallow in the mud is the pig's natural method of cooling himself, and if the pig-yards have a frontage to a stream, well and good, though there is an objection to pigs wallowing in a stream, in so far that infection may be carried down from diseased pigs higher up the stream, and as a result contagion spread over a wide area. Unfortunately, the hog wallow usually seen on the pig farm consists of a filthy puddle-hole, into which drains all the excrement from the yards, and in the foul mud of this, the only wet spot available, the pigs are compelled to seek relief.

If there is infection of any kind in the yard it is to be found in just this place. Such wallows should be drained and filled in, and if there is no naturally clean place for the pigs to lie, in, a concrete or similar bath should be built. This can then be kept clean, and the liability to infection from contagious disease will be diminished.

PIGS AND PASTURE.

Health and Production.

To exploit the capacity of the pig for high production and rapid growth, highly digestible rations, rich in minerals and flesh-forming substances must be provided as far as is compatible with costs and returns.

While highly concentrated feeds such as skim milk and barley are desirable for rapid growth, less concentrated foods serve well for maintenance.

The less concentrated feeds as a rule, are cheaper or more easily obtainable than the highly concentrated ones, the use of which should be confined as much as possible to pigs for slaughter and sows with young.

Irrespective of direct feed economy, access to pastures and other crops of similar productive value is useful in respect to health and to exercise which may affect carcase quality.

Considerable use should be made of pastures for dry sows, suckling sows with litters; not, as a rule, for pigs definitely being fattened, for which, however, access to pastures at regular intervals should be provided.

ANNUAL SUBSCRIPTION WITHIN THE COMMONWEALTH AND NEW ZEALAND, 6/-, Post Free.
Including "Fruit World Annual," 7/6 per annum.
SIXPENCE PER COPY.
OVERSEAS, 8/6, Post Free.
(Including "Annual," 10/- per an.)

THE FRUIT WORLD & MARKET GROWER

AN EXCELLENT ADVERTISING MEDIUM BECAUSE OF ITS WIDE AND COMPLETE CIRCULATION.

—o—

ADVERTISING RATES ON APPLICATION.

A Monthly Newspaper published in the interests of the Berry Growers, Deciduous, Citrus, Dried and Canned Fruitgrowers, and Market Gardeners.

— by the —

8-10 ORR STREET, (Off 78 VICTORIA ST.) MELBOURNE.
Box 1944, G.P.O. - - Phone: F 2656 (2 lines).

FRUIT WORLD PTY. LTD.
(Members of the Australian Monthly Newspapers' Association)

439 KENT STREET, SYDNEY.
Phone: M 6751 (3 lines).

Contents

Illustrations.

Mr. Armstrong's Garden, Red Cliffs, Vic. .. 13
Drying Grapes .. 23

Subjects.

Australian Fresh Fruit Export Trade .. 11, 12
Canned Fruits .. 25
Citrus Notes .. 26
Dried Fruits News .. 13-15
Export and Commercial News .. 29, 30
Fruit Industry Enquiry .. 16
Fruit Trees and Vines .. 7, 8
Grapes, Sawdust Packing for 12, 13
Letters to the Editor .. 5, 6
Market Grower .. 19, 20
Market Notes and Prices .. 33, 34
Motor Section .. 27
News in Brief .. 4
New South Wales .. 15, 16
New Zealand News and Notes 28
Obituary .. 4
Personal .. 3, 4
Soil Erosion .. 3
South Australia .. 21-23
Spraying for Insect Pest and Disease Control .. 7-9
Tasmanian Notes .. 17, 18
Victoria .. 9, 10, 31, 32

Index to Advertisers

Australasian Jam Co. Pty. Ltd. .. 14
Associated Cool Stores .. 15
Adelaide Fruit Merchants .. 33
Associated Shipowners .. 24
Australian Berry Baskets Co. 23

Bender & Co. Ltd. .. 2
Blair, F. A. .. 22
Blyth Chemicals Ltd. .. 2
Bingham, D. W., & Co. Pty. Ltd. .. 20
Brewer, W. H., Pty. Ltd. .. 15
Brisbane Fruit Merchants .. 32
Brookes Lemos Ltd. .. 6
Brown, W., & Sons .. 21
Brunning, John & Sons .. 6
Buzacott Sprays Pty. Ltd. .. 7

Campbell, Hope .. 9
Commonwealth Savings Bank 14
Clensel Products Pty. Ltd. .. 5
Colloidal Sulphur Pty. Ltd. .. 6
Cooper & Nephews, Wm. (Aust.) Ltd. .. 7
Co-operative Fruitgrowers of Otago Ltd. .. 54

Davis Gelatine .. 26
Dunlop Spray Hose .. 10

Excelsior Supply Co. Ltd. .. 16
Electrolytic Refining & Smelting Co. of Aust. Ltd. .. 8

Fotheringhams Pty. Ltd. .. 16
F. & M.G. Society .. 21

Gardeners' Supply Stores Co-op. Society Ltd. .. 22
Gerrard Wire Tying Machines Co. Pty. Ltd. .. 5, 13, 26
Goodman, C. J. .. 4

Harvey, Daniel Ltd. .. 24
Hillman & Keogh .. 6
Howard, R. G., & Co. .. 23
Hull, Port of .. 34

International Harvester Co. of Aust. Pty. Ltd. .. 14

Jaques Pty. Ltd. .. 9
Jones, H., & Co. Ltd. .. 30

Koerner, F. G., & Co. Ltd. .. 21

Leggo & Farmers, Victor Ltd. .. 8
Lightning Fruit Grader Co. .. Cover i.
London, Port of .. 28

Mas, R. .. 10
Melbourne Fruit Merchants .. 30
McLean, N. N., Pty. Ltd. .. 19
Monro, Geo., Ltd. .. 12
Motor Tractors Ltd. .. 20

Neptune Oil Co. Ltd. .. 4
Nobelius, C. A., & Sons Pty. Ltd. .. 20

Pestend .. 19
Poupart, T. J., Ltd. .. 18
Port Line Ltd. .. 30
Preston Motors Pty. Ltd. .. 27
Producers' Co-op. Dist. Society .. 30
Python Wire Strapping Pty. Ltd. .. 22

Quick Manufacturing Co. .. 24

Reillys Central Produce Mart Ltd. .. 30
Ridley & Houlding .. 31
Russell & Co. .. 10

Southampton, Port of .. 29
Southern Victoria Pear Packing Co. Ltd. .. 17
Sydney Fruit Merchants .. 31

Tasmanian Corrugated Paper Co. .. 16
Tasmanian Orchardists and Producers Ltd. .. 17
Trewhella Bros. Pty. Ltd. .. 25

U'Ren, Geo. A. .. 29

Werner, R., & Co. Pty. Ltd. .. 36
Wholesale Fruit Merchants' Assocaton of Victoria .. 35
Wilson, Herbert, Pty. Ltd. .. 34

Soil Erosion

THE menace of soil erosion, while understood by some leaders in the community, is not even dimly perceived by the great mass of the people. The public conscience needs to be awakened on this exceedingly serious matter. Half the population of Australia live in and around its capital cities, where the problems of soil erosion in the country areas are not even dimly conceived. The Australian Natives Association has taken the matter up, and soil erosion committees have been appointed.

Already vast areas of land have been rendered worthless; flooding has occurred as the result of the denuding of forest areas. The bulletin issued to the A.N.A. entitled "Soil Conservation—A Critical Survey and an Appeal" should be digested by all far-seeing producers whose whole weight should be thrown behind the efforts to prevent a major national disaster.

This bulletin points out the danger to the irrigation areas along the Murray because of the removal of trees and woody scrub in the watershed area. The greatest contribution to the waters of the Murray, particularly in low water periods, comes from the upper reaches above Albury. Although the River Murray Commission is responsible for the millions of pounds invested in this and other Murray River projects, it has no control over the catchment areas.

The Victorian Forestry Commission has earnestly directed attention to the absence of intelligent control of the watershed. Land is held privately, right in the heart of the forest reserves, and operations are carried out which will not only lower the efficiency of the catchment, but will endanger the whole surrounding forest reserve.

Serious wastage due to soil erosion is taking place on many parts of the watershed. During floods, valley land will be washed away and silted over elsewhere. Irrigation works will be endangered; their storage possibilities reduced, roads, bridges, and other public works will be open to excessive damage. The Hume Reservoir is in danger.

To put a stop to the ruinous practices now prevailing, it is essential that the water should be placed under control by an official body, free from political control, whose main objective would be wise use of the land and the conservation of the resources.

Those who have seen in the Picture Screen News Reels, the dreadful effect of soil erosion in United States will need no convincing as to the menace which is rapidly overtaking Australia.

Leaders in this movement for the prevention of soil erosion are deserving of the best thanks of the community.

Personal

Earl de la Warr, Lord Privy Seal, now on a visit to Australia, expressed pleasure with all he saw when visiting the Shepparton Cannery on January 20. Earlier he was the guest at a luncheon tendered by the Shepparton Chamber of Commerce.

Mr. H. W. Soothill, manager of the Producers' Markets Ltd., Perth, and of the Mt. Barker Fruitgrowers' Co-operative Society Ltd., is now closely observing fruit marketing conditions in London. He is expected back in Perth during early March.

Mr. A. L. Bussau, M.L.A., Victorian Attorney-General and Minister for Transport, has been appointed Victorian Agent-General in London to replace the late Brig. General Bourchier.

Congratulations to the Minister for Customs, Sir Earle Page, on his knighthood.

Changes in the Division of Plant Industry (Research), Queensland Department of Agriculture, are as follows:—

Mr. J. Harold Smith, M.Sc.Agr., entomologist, has been appointed Senior Research Officer, Entomological Section.

Mr. R. E. Soutter, Agricultural Research Officer, to the position of Senior Research Officer, Agricultural Section.

Mr. W. A. T. Summerville, M.Sc., Entomologist. Science Branch, to be Senior Research Officer, Horticultural Section.

Mr. H. K. Lewcock, M.Sc. (U.S.A.), B.Sc.Agr. (Adel.), Pathologist, to be Senior Research Officer, Plant Physiology Section.

Mr. W. D. Francis, Assistant Botanist, to be Botanist, Botanical Section.

PERSONAL—(Continued)

Messrs. J. M. Ely and J. H. Lang were delegates from Harcourt (Vic.) in approaching the Water Commission for needed supplies of water for their district's orchards. Unfortunately their requests for the desired irrigations could not be granted.

Appreciation has been expressed for the very interesting comments published in the last issue of the "Fruit World" on fruit marketing abroad, by Mr. F. R. Mellor, a member of the Executive of the Victorian Fruit Marketing Association, who recently returned from a visit to England and the Continent.

While on vacation in the Blue Mountains recently, Capt. W. J. Wade, Australian representative for the Port of Manchester, was taken suddenly ill. He was sent to the Katoomba Hospital, where an operation was performed with success, and Capt. Wade has now quite recovered.

Mr. J. Dundas Smith, Jnr., of the Chilean Nitrates Corporation, Sydney, who has been on the sick list for several months, is now well on the road to recovery. Mr. Smith is a son of the Chilean Consul (Mr. Dundas Smith), chief representative of the Chilean Nitrate Corporation in Australia.

Mr. A. J. Cooper, of the Sydney Fruit Markets, is seriously ill. It was thought that he would be able to resume business recently, but matters have taken a turn for the worse, and his condition is causing his family much concern. His two sons are capably conducting the business during his absence.

OBITUARY

Mr. T. B. Molomby, ex-Victorian Railways Commissioner, passed away on January 23. He was appointed a Commissioner in 1924, following a service of 41 years in the Railways Department. He retired in 1933. At all stages of his career he was a good friend to primary producers. All associated with the fruit industry held him in high esteem. Sympathy is extended to the relatives. He leaves a widow, two sons and two daughters.

NEWS IN BRIEF

AN ECONOMIC SURVEY of the primary production in Great Britain and the Dominions will be presented at the forthcoming Empire Producers' Conference, to be held at Sydney from March 26 to April 7.

The leading primary producers' organisations in England, Scotland, Canada, Rhodesia, New Zealand and Australia, will be represented.

The conference will be divided into "Industry" groups, to deal with meat, wheat, dairy produce, fruit, etc. Thus, as regards the Empire fruit industry, an adequate survey of world conditions will be given, and efforts will be made to deal effectively with surpluses.

It is of particular interest just now, when questions regarding planned production and marketing are engaging the attention of leaders of thought throughout the world.

In Australia the fresh fruit situation presents many problems. This season thousands of tons of Plums have been wasted: in Tasmania over 1,000 tons of berry fruits suffered a similar fate.

Regarding the overproduction of Plums, the chairman of the Fruit Industry Sugar Concession Committee has directed attention to inevitable problems, "while Australia remains divided into six States, with authorities in each of them independently pursuing policies of local expansion, irrespective of the position in Australia as a whole."

As regards Apples, the quantity in Australia is steadily increasing, while export markets are not correspondingly expanding. With the enforcement of reasonable grading regulations and the continuity of the advertising campaign, coupled with a programme of market development, the position can be stabilised.

Apple exports to all places from New Zealand are expected to be around 1,415,000 cases in the 1938 season; Pear exports to all markets 100,000 cases.

The Victorian Transport Board has come in for a measure of criticism because of the methods adopted as part of their campaign to stop over-loading.

A large number of fruit lorries from the Goulburn Valley, bound for Melbourne, were held up for periods up to two hours, as a result of which many consignments missed the market, resulting in a complete loss of the fruit.

Certain checks may be necessary, but these should not create economic loss.

The 1938 Apple crop is estimated by the Victorian Department of Agriculture to yield 2,500,000 bushels, as compared with 2,800,000 bushels last year, and for 1,500,000 bushels of Pears as against 1,600,000 last year.

"FRUIT WORLD ANNUAL."

Comprehensive and Valuable Production.

THE 1938 "Fruit World Annual" embracing cultural information and complete statistics regarding the fruitgrowing industry, is a book of daily reference for all sections of the industry—fresh, dried and canned.

Some of the subjects dealt with are —Apple and Pear Packing and Export, Canned Fruit Production and Export, Citrus Production, Cool Storage Investigations, Cool Stores and Case Capacities, Distribution of Fruit Throughout Australia, Dried Fruit Production, Frost Prevention, Fruit and Jam Manufacturers, Pollination Studies, Soil Fertility, etc.

As on previous occasions there is included an exceedingly valuable spraying section showing (in natural colors) the major insect pests and fungus diseases, together with expert information relative to control measures.

In addition, there is a list of Fruitgrowers' Associations and dried fruit packing sheds throughout Australia.

The publication is a valuable work of reference for all connected with the fruit industry. Copies are obtainable from the Fruit World Pty. Ltd., 439 Kent-street, Sydney, and Box 1944 G.P.O., Melbourne, at 1/6 post free.

As Spraying is a Necessity —then use the World's Best—

NEPTUNE SPRAYS . . .

The better quality of NEPTUNE Sprays is always obvious by comparison with others. NEPTUNE Sprays conform to the highest standards, and they are consistently uniform in strength and quality. Successful orchardists recommend them. Try them yourself and prove that they're better!

NEPTUNE PREPARED RED SPRAYING OIL ("A," "C," or Heavy Base)
NEPTUNE PALSOL (Prepared Pale Oil)
NEPTUNE CLARIFOL (Winter White Oil)
NEPTUNE WHITE SPRAYING OIL (Summer Spray.)
NEPTUNE LIME SULPHUR SOLUTION (Clear, amber-coloured, free from sludge)
GENUINE MACCLESFIELD BLUESTONE
CHEMICAL SULPHUR
(23871)
BERGER'S ARSENATE (Powder or Paste)
COLLOIDAL LEAD ARSENATE
ENGLISH BLUESTONE SNOW
GENUINE BLACK LEAF 40
NEPTUNE LIME
POWDERED SULPHUR
COPPER SPRAY
NEPTUNE SPRAY SPREADER

NEPTUNE OIL CO. PTY. LTD. (INCORPORATED IN N.S.W.) ALL STATES.

It Pays to Plant GOODMAN'S FRUIT TREES

They do well in all districts, resisting pests and producing big crops of high-grade marketable fruit.
Private Railway Siding ensures quick despatch. Write for Catalogue.
C. J. Goodman Picnic Point Nurseries, Bairnsdale, Vic.

Letters to the Editor

Power Alcohol from Waste Fruit and Potatoes

(To the Editor of the "Fruit World and Market Grower.")

Sir,

Here is something which may be of interest to the Potato grower.

Do you know it takes 50 gallons of alcohol to make a six inch shell? According to reports which I have it does. At the time of the 1914 war the British Government were paying £1 per gallon for alcohol. At that time it was pointed out that Australia could have paid 5/- per bushel for Wheat and produced the alcohol at 2/9 per gallon and saved the Empire 17/3 a gallon, which means for each six inch shell fired it would have been a direct saving of £43/2/6. Statistics have shown that Germany, in normal times before the war, had 6,000 immense distilleries turning out alcohol for industrial purposes. The German Government even gave a bonus of £1 a ton to all government farmers who delivered their Potatoes to the State distilleries. In 1913 Great Britain produced 283,000,000 bushels of Potatoes, but Germany produced 1,988,000,000 bushels! Since 1888 Germany has increased her Potato growing 109 per cent.

Now let us see what the Commonwealth has done for S.A. Here is an exact report in Bulletin No. 8 on power alcohol (Dr. Hargreaves is a director), and written by W. T. Rowe, F.I.C. chemist.

"Looking at Potatoes as a possible source of alcohol, it is estimated that one ton will produce about 23 gallons of pure alcohol. This means that to make alcohol at a cost of 1/- per gallon (material only) the price of Potatoes would require to be 23/- per ton, and distilled at the spot where grown. Cheap alcohol was made in the South East S.A. at one time in this way, but the industry was shut down owing to the Commonwealth law forbidding its use for the purpose of fortifying wine. No definite figures are available to show the cost of production, **but the methylated spirit was sold at 1/3 per gallon.**"

It must be remembered that sweet Potatoes produce nearly 40 gallons per ton.

The best petrol is 1/10 per gallon to-day, and it does not take 100 per cent, pure alcohol to run an engine. I am told by experts 65 per cent. is sufficient. The Government must awaken to the situation, or the production of cheap alcohol for industrial purposes must be encouraged, as it is in Germany, France and America.

Apples.

A leading S.A. newspaper interviewed Mr. H. L. Penfold Hyland, of Penfold's Wines Ltd., Magill, who is one of the largest distillers, not only in Australia, but of the world. He said: "It will be a fine thing for the Apple growers."

The paper stated recently it would be a fine thing if Apple growers could have their waste fruit distilled.

"Will you avail yourself of the opportunity?" Mr. Hyland was asked. "Certainly," he replied enthusiastically. "We will take unlimited quantities at our distilleries directly the present vintage is finished. In a season when Apples are plentful we could manufacture more than 20,000 gallons of spirit from the waste fruit!"

There is another class called "co-operation" who tries to get you to believe that South Australia has solved the problem by co-operation. These are the actual facts of the markets of January, Friday 14:—After the market Apples could be bought for 2/- per case 40 lbs., Plums, 40 lb. case, the same price; Peaches, 2/- same size of case, Pears (green)—these were offered by one grower for 1/- per case 40 lbs., and then he had to give them away. Rhubarb was offered by another grower, 6 lbs. in a bundle for 2d., and then it was not sold; finally it, too, was given away.

The market is so bad that a conference is to be called on Friday, January 21, to help growers out of the serious position.

I wrote to a well-known Member of Parliament in the Legislative Council about this alcohol business, and here is the last part of his letter:—"This strangling of a vast wealth-making industry is one of the penalties we have to pay for Federation. We will wake up some day."

Brother growers, will you come forth and play your part in unity to develop this wonderful country of ours on modern lines?

Yours, etc.,

"STILL DOING MY BIT."

S. Aust., 14/1/38.

Power Alcohol

(The Editor, "Fruit World and Market Grower.")

Sir,

It is interesting to have the views of your correspondent, "Common Sense."

If one ton of dry wood, treated under pressure with dilute acid, produces about 20 gallons of poisonous methyl alcohol, it is not conceivable that one ton of over-ripe Apples, with an extremely high sugar content, will produce only 7 gallons of power alcohol made equally poisonous.

France and Germany, with an area nearly equal to New South Wales, Victoria and Tasmania, a population of about 100,000,000 people, a large amount of foodstuffs imported from North and South America.

Major-General H. Gordon Bennett, C.B., C.M.G., D.S.O., V.D., in "Material, Not Men, Win Battles," affirms it is compulsory in France and Germany to mix petrol with 40 per cent. locally produced power alcohol.

Dr. N. S. Bayliss, recently appointed to the chair of chemistry at the University of West Australia, has stated in the Melbourne daily press that in the years 1935-36 Australia imported 250,000,000 gallons of petrol.

Our small population produces foodstuffs from sugar to all kinds of fruit far in excess of our requirements, with a limited market for export.

It is the duty of our Federal Government to compel the petrol importing companies to mix petrol with locally produced power alcohol, otherwise the status of the fruit-grower in Australia will be lower than the coolie in India and China.

During the Great War when petrol in Melbourne was as hard to obtain as sugar, even for the small number of cars on the roads.

The Commonwealth Government's fleet of Ford postal cars, stationed at Sturt-street, South Melbourne, for clearing post offices and letter receiving boxes throughout Melbourne and suburbs used power alcohol.

Judging by the smell at the exhaust and at the bowser pump it was nearly 100 per cent. alcohol. This spirit was used for some years after the war.

In the next war, if our Federal Government does not make provision for locally produced motor spirit, our motor transport, also our Australian defence, will be emasculated.

This also applies in a lesser degree to lubricating oils. Castor oil, one of our most reliable lubricants, obtainable at all motor garages—a large quantity is manufactured locally from imported castor Oil Beans, the residue, or meal, sold to market gardeners and florists as fertiliser. Castor Oil Beans should be largely grown in Australia, where soil and climate are suitable, assisted, if necessary, by a Government bounty.

A. J. FARRANCE.

Vermont, Vic., 10/12/37.

"Power Alcohol from Apples not Economic"

(The Editor "Fruit World.")

Sir,—In your last issue is a letter by "Done My Bit," who attempts to criticise my previous letter, which exposed the fallacy of the suggestion to commercially manufacture power alcohol from waste Apples and to market the spirit in competition with petrol.

Probably your correspondent firmly believes that what he writes is correct, but I can only think that his enthusiasm has overridden his judgment, for despite his having obtained information from experts and manufacturers, he, judging by his letter, has not the elementary knowledge of the principles regarding the production of alcohol. If he had, surely, he would not quote the story about producing 80 gallons of alcohol from a ton of straw. Eighty gallons is approximately the quantity obtained from a ton of maize, a very different thing. Also, the idea that sugar is not the primary basis of all alcohol, and that fruit such as Plums, also Rhubarb, being made into a good wine, is an argument to prove that his ideas are correct. Perhaps he does not know that wine made from any fruit with a low sugar content or a vegetable such as Rhubarb, always have cane sugar added in large quantities, often 2 lbs. per gallon, or 20 per cent. This is necessary in order to make fermentation into an alcoholic wine possible. Then there are the Watermelons. These may taste sweet, but the percentage of actual sugar in these is very small, hence the low percentage of spirit that can be obtained. Cider Apples, which are not produced in Australia, but are largely grown in Europe specially for producing their best ciders, are in many instances astringent, and disagreeable in taste, and are not used for dessert or cooking, but it is the high sugar contents of these varieties that make them invaluable for cider making.

In my previous letter I gave facts and figures which may be checked and confirmed by anyone taking the trouble to read "Henley's 20th Century Formula and Processes, 1934." pages 667 to 674. This book goes fully into the manufacture of power alcohol and gives the results for many of the raw materials generally used

PATERSON'S

CONCENTRATED CLENSEL

The Perfect Insecticide and Fungicide

Sudden Death to Insect Pests

This general purpose orchard spray is now manufactured in Australia.

Orchardists:

"CLENSEL" is non-poisonous and effective, easy to handle, economical and absolutely harmless to trees and foliage. **"CLENSEL"** can be used in every season of the year on **Apples, Pears, Vine Fruits, Citrus** and other fruits. Invaluable for pests which are vulnerable to contact insecticides or for use in conjunction with sprays that are applied for chewing insects and fungus diseases.

Market Gardeners:

"CLENSEL" will be found effective in the control of **Cabbage Aphids, Red Spider, Rutherglen Bug, Pea Mite, Cabbage Moth, Onion Thrips, Bean Aphids, Jassids, Leaf Hoppers, Canary Flies and Harlequin Bug.**

Write for Leaflets and Further Particulars, Samples, Etc., to—

CLENSEL PRODUCTS PTY. LTD.

Works: Footscray, Vic. **Phone: Footscray 99.**

Office: 360 Collins Street, Melbourne *Cent. 8083*

NEWS

GERRARD

Has published a new larger and better

PACKING CHART

for Apples and Pears

A COPY WILL BE POSTED

FREE

on application, to fruit growers, packers and members of school packing classes.

WRITE PROMPTLY for your copy, merely giving your name and address and saying:—

"Apple and Pear Chart Please."

GERRARD SERVICE

GERRARD The Tie That Binds

Gerrard Wire Tying Machines Co. Pty. Ltd.

18-24 IRELAND STREET, WEST MELBOURNE, C.3.

Sydney, Brisbane, Adelaide, Perth, Townsville, Hobart.

Citrus Growers should have a copy of Gerrard Citrus Packing Chart.

"SPREGAN"
Colloidal Liquid Sulphur

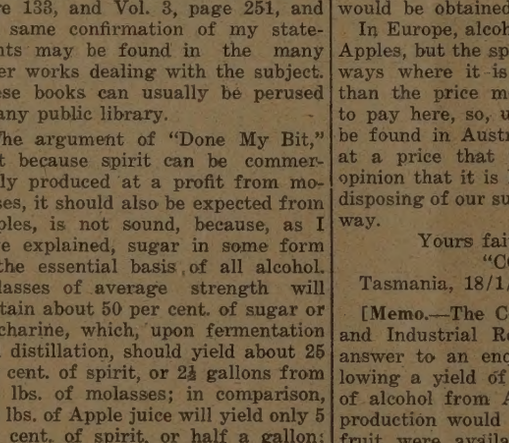
For efficacious treatment of BLACK SPOT, BROWN ROT, DOWNY MILDEW, OIDIUM, and all Fungus Diseases for which Sulphur in any form may be used as a control.

SAFE - - - - Because it prevents Leaf Scorch.
CERTAIN - - Because it gives definite control of Fungus Diseases.
ECONOMICAL Because it ensures maximum results at less cost than other forms of Sulphurs.

As a Precautionary Spray, 1 lb. of "SPREGAN" to 100 gallons of water.
As a Combatant Spray, 2 lb. of "SPREGAN" to 100 gallons of water.

Manufacturers COLLOIDAL SULPHUR PTY. LTD.
Wholesale and Retail Depot - - 466 Swanston Street, Carlton, N.3, Victoria.

"HILLMAN" ORCHARD STRIP PLOW
Double Furrow



The steering arms are drop forged from the best mild steel and the main wheels are equipped with ball bearings.
Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

Further particulars apply . . .

HILLMAN & KEOGH
Implement Manufacturers
Shipley Street, Box Hill, Melbourne, E.11

FRUIT BUYERS
LEMONS, ORANGES, GRAPEFRUIT, PEARS, PEACHES, APRICOTS, BERRIES, CHERRIES.

BROOKE'S LEMOS LTD.
69-79 WHITEMAN STREET, MELBOURNE SOUTH, S.C.5.
— Telephone, M 3141. —

Fruit TreeS
Fruit TreeS
Fruit TreeS

Best Obtainable — Catalogue Free.

Quality first and all the time.
Book Now for Delivery June-July.
Orders reserved.

John Brunning and Sons
Somerville Nurseries,
Somerville, Victoria Australia
Orchards & Nurseries 208 Acres.
Private Cool Stores, 17,500 Case Capacity.
— Established 1866 —
Phones:
Somerville 221 - - After hours 252

What is stated there is fully confirmed in Ency. Britt. Vol. 27, page 91, also by Chambers' Ency., Vol. 1, page 133, and Vol. 3, page 251, and the same confirmation of my statements may be found in the many other works dealing with the subject. These books can usually be perused at any public library.

The argument of "Done My Bit," that because spirit can be commercially produced at a profit from molasses, it should also be expected from Apples, is not sound, because, as I have explained, sugar in some form is the essential basis of all alcohol. Molasses of average strength will contain about 50 per cent. of sugar or saccharine, which, upon fermentation and distillation, should yield about 25 per cent. of spirit, or 2½ gallons from 100 lbs. of molasses; in comparison, 100 lbs. of Apple juice will yield only 5 per cent. of spirit, or half a gallon; and it will take at least three bushels of Apples to yield 100 lbs. of juice. Half a gallon of spirit at wholesale rates, if sold in competition with petrol, would be worth about 8d., so how could a manufacturer pay from 1/- to 1/9 per bushel, as suggested by "Done My Bit," when he has only 8d. worth of spirit from three bushels of Apples, and remember he must pay costs of manufacture before there is anything for the grower?

Apples contain about 85 per cent. of water, and it is not possible that the whole of the remaining 15 per cent. will consist of matter that is convertable to alcohol, in fact, if the whole of that 15 per cent. were sugar, which of course it is not, only about half would be converted into alcohol, as about 50 per cent. of the sugar contents be it from fruit, molasses, or cereals, are lost in the process of fermentation, the other half is expended in the process and passes off in the form of carbonic acid gas. This gas can be seen escaping from the fermenting liquid as it bubbles up.

Taking the facts into consideration it is, I think, certain that as waste Apples would certainly be a very poor grade, it is extremely unlikely that a higher return than I have estimated would be obtained.

In Europe, alcohol is produced from Apples, but the spirit is used in many ways where it is worth much more than the price motorists would care to pay here, so, unless some use can be found in Australia for the article at a price that will pay, I am of opinion that it is hopeless to think of disposing of our surplus Apples in that way.

Yours faithfully,
"COMMONSENSE."
Tasmania, 18/1/38.

[Memo.—The Council for Scientific and Industrial Research advises, in answer to an enquiry, that even allowing a yield of 12 gallons per ton of alcohol from Apples, the costs of production would be such that if the fruit were available for nothing, it would not even pay cartage. Further details next issue.—Ed. "F.W. and M.G."]

Regulating the Apple Crop

Frank Pyke's Proposal Commended.

The Editor, "Fruit World."
Sir,

As the originator of this discussion on Apple production may I commend Mr. Pyke on his scheme of regulating the Apple crop. He appears to have evolved the most constructive and yet simple scheme yet put forward for the betterment of the Apple market. It is certainly time we stopped glutting markets, and the control is in our own hands. Such a scheme would stabilise the industry and ensure a fairly constant supply of Apples each year. The scheme is sufficiently elastic to cater for the Apple market from year to year, in a light year, or, if the consumption of Apples increased, there would be little or no stripping to be done. If in any year too much stripping was done, growers would be compensated by the higher price, and would not lose by it.

The policing might present a difficulty, but with the close co-operation of growers, this would be overcome. Each grower could police his neighbour's orchard, and report if the stripping was not carried out. It would be in his and all growers' interest to do this. There would have to be a penalty for failure to strip.

I do not agree with allowing 15 acres for orchardists' sons. It might well undo the effect we are trying for, i.e., the restriction of quantity.

Haphazard production is doomed to failure, the primary producer is the only one who does this. He just blindly produces, irrespective of market requirements.

Yours, etc.,
SMALL GROWER.
Ringwood, December 23, 1937.

"Keep Low Grade Fruit Off the Market"

Continued Apple Publicity Advocated.

Mrs. Osborn, of "Stonycroft," Upper Beaconsfield, Vic., writes stating that at the Country Women's Council Association at Warragul last year, much publicity was given to the value of Apples in order to increase consumption. A similar project is proposed for the next State C.W.A. Conference in June next. The C.W.A. has 273 branches and a membership of between 12 and 20 thousand women.

Continuing, Mrs. Osborn writes as follows—

"The Apple and Pear Council Recipe Book is splendid; we tell everyone about it. But! are things being done the best way to help the Apple industry? Why are so many second-grade and very second grade Apples allowed on the market? When friends and relations come up here and are given reject Apples, how is it they all say that our rejects are better than Apples for which they pay a good price? To me that is the weakest part of the Apple industry. Export Apples must be this and that, scarcely a blemish and definitely no Codling Moth, and yet anything is allowed on the local market. If only good Apples were allowed to be sold it would go a very long way towards solving the problem, I am sure. There is no fairness or encouragement for the Apple grower.

We have been obliged to use the softwood cases, and now the price has simply leapt up, and the price for Apples has dropped. England, which should know better (I am an Englishwoman), is apparently giving part of our allotted trade to America. The Government has reduced the bounty: I don't believe in bounties, but a Government that can afford to raise its own salary and the salaries of public servants who are in a better position than Apple growers could well afford the extra bounty. It doesn't seem to be worth while struggling and trying to make a living in the country, for most Apple growers whom I know are struggling. The idea of a levy on Apples and Pears in Australia to raise funds for publicity is good."

ACKNOWLEDGMENTS.

A brochure is to hand from the Lunevale Products Ltd., Lancaster, England, giving particulars of their lead arsenate powder, colloidal lead arsenate, combined lead arsenate and lime sulphur wash, microsulphur dust, seed dressing preparation, nicolate sulphate, and colloidal rotenone wash.

The firm states their Melbourne representatives are Messrs. Brown & Dureau Ltd., 422-428 Collins-street, Melbourne.

:: :: ::

From C. H. Tutton Pty. Ltd., Melbourne, an attractive bookmark with seasonal greetings.

Spraying for Insect Pest and Disease Control

Fruit Trees and Vines

Injections and Zinc Points for Pest and Disease Control.

Bottle Fed Trees :: "Little Leaf" Control :: Mottle Leaf of Citrus.

INTERESTING INFORMATION was published in the January issue of the "Fruit World and Market Grower" on the subject of injections and zinc points for pest and disease control. The information came from Mr. W. E. Muspratt, previously of the Murray Valley, and now of Littlemore, Queensland.

Continuing from the January issue the following details are now supplied:—

Bottle Fed Trees.

(Copied from "Californian Cultivator.")

Every once in a while during the past 25 or 30 years someone has brought forth the idea of injecting chemicals into trunks of trees for various and sundry purposes, some to induce vigor, others to increase their resistance against pests or diseases, and still others to kill the pests with which the trees were infested.

Up until a few years ago all these schemes were considered more or less fakes. However, in recent years some very definite results have been obtained with certain chemicals through their injection into the tree trunks.

Now comes a report from England showing good results from feeding Apple trees by injecting plant food into the trunks of the trees, by what the writer terms bottle method. Here is the report as given, and readers can take it for what it is worth:—

One of the latest ideas from East Malling Research Station says Professor J. A. Scott Watson, of Oxford, in the current issue of the British Ministry of Agriculture's journal, is that of putting Apple trees on the bottle. In other words, since it is a tedious business to feed the trees by applying manure to the soil, they are to have nutrients injected directly into their stems. One of the difficulties in keeping orchards adequately and at the same time economically manured, is the slowness of the response that the tree makes to a fertiliser applied to the soil in the usual way. Thus, if we suspect a potash deficiency, make a trial application on a small area, await results, and then decide upon a general application. Many years may elapse before the orchard as a whole will show benefit. The new method provides a much quicker means of discovering the needs of the tree. Moreover, it may quite conceivably prove useful as a means of feeding whole plantations. The nutrient to be given is dissolved in enough water to make a solution of about one-quarter per cent. strength—one pound to 40 gallons.

The solution is held in any convenient container which is supported at a level higher than that of the point where the injection is to be made. A hole one-quarter inch in diameter is bored through the stem of the tree and a narrow glass tube is inserted at one end, with a collar of sponge rubber fitting close against the bark. The other end of the hole is blocked with a sponge rubber stopper. The glass tube is connected to the container by means of a syphon, and, as soon as the pressure of the liquid has expelled the air from the hole, the apparatus is bound up to prevent leakage.

The experiments have shown that, in Summer, the tree gets a suitable amount of nourishment in a period of one to three days, leaf scorch setting in if the treatment is continued too long.

One set of apparatus may thus be used to treat, in succession, a considerable number of trees. In large scale experiments a group of Cox Orange Pippin trees, 21 years old, received treatment, the operation being carried out in June. The solution contained one-quarter per cent. of phosphate of potash and one-quarter per cent. of area, a substance containing nearly twice as much nitrogen as sulphate of ammonia and being also more easily utilised by the plant.

Varying quantities of the solution were used, containing up to one-half pound of each nutrient per tree, equal to about 50 pounds per acre. **The results were extremely promising.**

The treated trees produced up to two or three times as much shoot growth as the untreated—the increase varying with the amount of nutrient given. It is stated that the trees used for the experiments were already in vigorous growth and that still more striking results would probably be obtained by operating on weakly specimens. **The work well illustrates the remarkable ways in which scientific knowledge and human ingenuity are brought to bear upon the life processes of the fruit tree.**

"Little Leaf."

Also from an American paper ("Pacific Rural Press," or "Californian Cultivator").

ZINC SULPHATE injected into trunks of Cherry trees at the base just under the ground line at the Dalles the last two seasons resulted in almost complete recovery of sweet Cherry trees affected with "Little Leaf" conditions or "Rosette." This tree malady is characterised by yellowed foliage on the Cherry at the Dalles, and often accompanied by clusters of small leaves, most generally followed by death of the tree within a year or so.

The suggestions for this treatment are taken from reports of work by the Californian Experimental Station by Dr. W. H. Chandler, on orchard trees other than the Cherry. The work at The Dalles was done by county agent Lawrence and the Extension Horticulturist. Demonstrations in the use of zinc sulphate will be continued at The Dalles next year. The applications will be made very early in the Spring. The treatment used involved boring three-eighth inch holes one and one half inches apart around the tree. These openings are filled with zinc sulphate to within about one half inch of the outside and the hole is plugged with grafting wax. **Cherry trees thus treated at The Dalles had been affected with "Little Leaf." This treatment is said to be effective for about three years after treatment is given.** Affected trees treated with zinc sulphate in 1933 produced crops of Cherries in 1934.

In the irrigated sections of Washington State, the "Little Leaf" condition in orchards is reported remedied through growing in the orchard of legume cover crops annually.

Dr. W. H. Chandler reports as follows on "Little Leaf" causes in Volume 30 (1933), American Society for Horticultural Science.

"Practically all our observations duirng this year are in harmony with the views that "Little Leaf" is a symptom of deficiency of zinc for normal metabolism. Yet because of the suddenness with which a healthy vigorous tree may begin to die from "Little Leaf," because some trees have recovered without any conceivable improvement in the zinc supply, and because of the very general susceptibility of large woody perennials and the apparently general freedom of annual plants grown in the same soils, from "Little Ieaf," we are not convinced that it is due merely to a zinc deficiency. We believe that the cause of the disease remains an open question requiring further evidence.

By D. E. Whitney.

For several years zinc compounds have been used experimentally with success to control Mottle Leaf in citrus, and to a lesser extent "Little Leaf" of deciduous trees, to a certain degree the method is still in the experimental stage, but zinc in some form has come to stay.

It is now used widely and with great success as part of practical orchard management.

Spray Formulae.

Little Leaf of Deciduous.

10 lbs. zinc sulphate.
5 lbs. hydrated lime.
100 gallons water.
(No spreader mentioned.)

Spray in early Spring, or a wood spray for deciduous.

Best results from painting vines **immediately** after pruning all wounds, using 2 lbs. zinc sulphate, 1 gallon water.

For Unsurpassed Quality

"Buzacott"

ARSENATE OF LEAD

Powder or Paste

Sole Victorian Distributors:

BUZACOTT SPRAYS
Pty. Ltd.
249 Franklin St. - Melbourne
Telephone F 4764

Citrus Growers!

COOPER'S

ALBOLEUM

is still the best, safest and most economical oil for the control of Scale and other Insect Pests.

Packed in 44 gall., 5 gall., 2 gall., and 1 gall. drums, and Cases — 2 x four gal. tins.

Obtainable from all Packing Sheds, Associations, etc.

Victorian Distributors :

RAMSAY & TREGANOWAN LTD.

469 - 475 LATROBE STREET, MELBOURNE

WEED, SCRUB and TREE KILLERS

"VALLO" PENTOXIDE
LIQUID 36% As_2O_5
GRANULATED 83% As_2O_5

ARZEEN
LIQUID 48% As_2O_3
POWDER 80% As_2O_3

Highly Concentrated Preparations of

SOLUBLE ARSENIC

READY FOR IMMEDIATE USE

The most effective and economical weed-killers. Eradicates blackberries and all other noxious vegetation. Completely kills useless timber and prevents growth of suckers.

Supplies Obtainable All Stores *Write for Particulars, Dilutions, Etc.*

VICTOR LEGGO & FARMERS LTD.

Phone: Central 1243 222 Queen Street, Melbourne, C.1 G.P.O. Box No. 508 H

Mottle Leaf of Citrus.

10 lbs. zinc sulphate.
8 lbs. hydrated lime.
100 gallons water.

for badly infected trees, and half strength for slightly infected trees. With both formulae use 4 ounces of blood albumen spreader. Mixes readily with water, can be used at any time, not necessary to wet branches, as absorption is done through leaves.

Zinc Pieces Driven in the Bark.

In general the small diamond points are effective in trunks and limbs up to about two and one half inches to three inches in diameter. Usually 12 to 15 pieces are used for every inch in circumference. They are driven in about one inch apart each way, parallel with the grain of the wood, and can be put in at any time during the year.

For larger trees 24 gauge hot dip galvanised iron pieces are being tried, and some put in during the Summer are already giving results.

Re vines badly infested with "Little Leaf." The small zinc pieces driven in last Winter in the proportion of 45 for vine three inches in circumference has also given practically complete cure. Zinc points driven into branches of one tree caused this tree to set a crop this year for the first time according to the owners.

Trees somewhat less affected, but on which the Almonds were always small stick-tights produced normal Almonds which peeled easily this year following the spraying. This spraying must be done while tree is thoroughly dormant to avoid bud injury (deciduous).

Mr. W. E. Muspratt writes: "Re article in the January issue of the "Fruit World and Market Grower," and description of how to cut zinc points—these are shown much too wide in the illustration. I find, if made with too wide an angle, the growing bark has a tendency to force them out."

THE TOMATO CROP

Treatment for Green Aphids - - Successful Spraying Methods

IN THE PAST TWO YEARS late Autumn and early Spring Tomatoes in many areas became infested with a large green aphid, which caused considerable damage, especially during periods of cool, dry weather. Most growers attempted to control the aphids by adding nicotine sulphate to the Bordeaux spray usually employed on these early and late crops. Results were unsatisfactory, as infestation was not checked adequately, and, moveover, each spray application was followed by severe spray injury. This was apparent on the tender growth of the tops of the plants, where scorching of the young leaves and flower buds occurred. Repeated applications checked the development of the plants seriously and caused very light setting of fruit. Fruit scarring was also noted.

Experiments carried out with the object of

preventing spray injury

indicated that Bordeaux mixture and not the nicotine sulphate was responsible, writes an officer of the Entomological Branch of the Department of Agric. in an article in the N.S.W. "Agricultural Gazette." It was found also that Tomatoes when infested with green aphids are very susceptible to this type of injury by Bordeaux, and the addition of nicotine sulphate to the spray does not appear to increase the injury. It is considered, however, that injury is more severe where lead arsenate is added for control of fruit caterpillars.

It was demonstrated by these experiments that Bordeaux injury in Tomatoes infested with aphids can be prevented by adding white oil emulsion to the Bordeaux.

Scorching of the young leaves and the fruit buds does not occur when oil (1 in 100) is added to—(1) Bordeaux; (2) Bordeaux plus nicotine sulphate (1 in 800); and (3) Bordeaux plus nicotine sulphate (1 in 800) plus lead arsenate (1½ lb. to 40 gal.). Effective control of aphids is obtained with nicotine sulphate in Bordeaux when the white oil emulsion (1 in 100) is added, but weekly applications result in the development of small corky patches on the fruit.

Subsequent tests showed that the white oil, at a dilution of 1 in 150, is effective in preventing injury to the tops of the plants, and at this weaker strength the small, corky patches on the fruit do not develop.

White oil emulsion (1 in 150) added to Bordeaux plus nicotine sulphate (1 in 800) appeared to increase the efficiency of the spray against aphids. It is of interest to note that the white oil, diluted 1 in 150, prevented Bordeaux burn in hot weather on plants not infested with aphids.

In Preparing Your Bordeaux Sprays Use . . .

E S A BLUESTONE

— Manufactured by —

THE ELECTROLYTIC REFINING & SMELTING COMPANY OF AUSTRALIA LTD.
PORT KEMBLA, NEW SOUTH WALES.

The Right Material for Plant Disease Prevention and Control
GUARANTEED 99% PURITY

GRADES—Mixed Crystals, Fines, Granulated (Snow), Packed in Suitable Containers for Growers' Requirements.

Agents for All States: ELDER SMITH & COMPANY LIMITED, All Capital Cities.

BOOKLET—"Better Yields by Spraying with E S A Bluestone" obtainable on application to Elder Smith & Co. Ltd.

QUEENSLAND

Codling Moth Control Experiments.

EXPERIMENTS to combat the Codling Moth pest are being conducted by Mr. Keighley M Ward, M.Agr.Sc., who is a research officer of the Queensland Department of Agriculture.

Mr. G. R. Blair's orchard at The Summit is being used for the purpose. The aims of the investigation are: (1) to discover a spray which will not leave an arsenical residue on mature fruit; and (2) to establish a basis for the more effective timing of spray applications.

The following sprays are being tested: (1) Colloidal sulphur, nicotine sulphate; (2) Lead arsenate spreader; (3) Lead arsenate calyx sprays, white oil cover sprays; (4) Nicotine sulphate, white oil spreader; (5) Potash soap; (6) White oil, nicotine sulphate. Each spray is applied to six plots, each plot having four trees.

The entire crop is to be picked and sorted into infested and non-infested divisions. The percentage control will then be ascertained.

:: :: ::

Mr. Ward performed good service for producers in his research work when with the Victorian Department of Agriculture. The results of his research work in Queensland will be awaited with interest by growers in all the States.

Downy Mildew

Bordeaux Mixture Most Effective.

SPRAYING is superior to dusting for Downy Mildew on Grape vines, says H. L. Manuel, Viticultural Expert in the N.S.W. Agricultural Gazette. It made itself known in Australia by its devastating effects on the vineyards in Rutherglen, Victoria, in 1917, is indigenous to the United States of America, but was probably introduced into Australia from France on grafted vines.

In seasons favorable to its development it can do an enormous amount of damage if not checked. If it attacks the vines in the young bunch stage the whole crop can be lost. The berries are liable to attack almost right up to time of ripening. Even when the fruit is not diseased, the attack on the foliage is sufficient to upset the composition of the fruit. The wood of the vine can be seriously affected and in some instances vines have been killed by severe attacks.

In bad seasons much of the wine made from affected vines is only fit for the still, and wine made from crops from badly affected vines is not satisfactory, winemakers having difficulty also in keeping it in condition. So, apart from the loss in quantity, there is also loss of quality, and it behoves the grower to resort to preventive measures as much as possible, and not wait until the disease appears.

Bordeaux mixture is the most effective spray known, and as a general recommendation the first spraying should be given when the shoots are about 10 inches long, followed up with other sprayings as the growth increases.

In seasons which are abnormally wet, it will be necessary to keep the vine well covered with Bordeaux spray. The strength of the spray generally used is 6 lb. bluestone, 4 lb. lime, and 50 gallons water. In bad seasons it may be as well to increase the strength to 10-5-50. Spraying is superior to dusting.

Insect Pests and their Control

By Entomological Officers N.S.W. Dept. of Agric.

A Pseudo-Looper (Plusia chalcytes).

AT times in N.S.W. coastal districts the caterpillars of this introduced species become abundant and may partially defoliate Beans, Potatoes, and other vegetables, as well as various garden plants. The larvae feed also on weeds.

These caterpillars belong to the cutworm moth family Noctuidae, but unlike cutworms, they do not shelter in the soil by day, but are to be found feeding on their host plants.

The eggs are laid on the plants, and the caterpillars, which are slender-bodied and taper towards the head, measure up to an inch and a half when mature, and are a pale green color..

The caterpillars when crawling over the plant progress with a looping movement. For this reason they are often known as "pseudo-loopers," and resemble somewhat the true "loopers" of the family Geometridae.

Control.

The pest may be controlled by spraying with arsenate of lead, used at the rate of 1 lb. of arsenate of lead powder in 40 gallons of water.

It would be inadvisable to use arsenate of lead on vegetables such as Lettuce, Spinach, Beans, etc., which are to be used as food. In such cases, if the pest be sufficiently serious, a spray consisting of derris powder 1 lb. in 40 gallons of water may be of value in control.

Where the area is limited, hand picking and destruction of the caterpillars is of value, and clean cultivation is also a factor in their control.

The Elephant Beetle (Orthorhinus cylindrirostris).

THE ELEPHANT BEETLE is a common and widely distributed native species of weevil which, at times, becomes a pest in orchards, where it injures various trees, including Apple, Apricot, Citrus and Peach, and also the Grape vines. It has been recorded as breeding also in brushbox (Tristania conferta), the Queensland Bean tree (Castanospermum australe) and gum trees (Eucalyptus).

The beetles destroy the young buds of the trees and vines and eat numerous small patches of the young bark. In their native state, they have been observed to show a marked preference for freshly-fallen timber, when the bark is just beginning to wither. Usually, during the day, they remain concealed, but are winged and fly at night.

Towards the end of September the larvae form a coarse cocoon of woody fibres, within the tunnel, and enter their pupal or chrysalis stage. At that stage, they measure a little more than half an inch in length. After about three weeks in the pupal stage, the adults emerge from the pupae (October to November), and gnaw their way out through the trunk of the tree, leaving behind them a round hole about a quarter of an inch in diameter.

In some instances, numerous holes have been seen in the trunks of citrus trees. These holes occur at a height of from a couple of inches above the soil surface to about a foot up the trunk.

Control.

At present, there is no ready method of controlling these boring larvae within living trees, as usually there is little, if any, external evidence of their presence until most of the damage has occurred, and the emergence holes of the adults are seen on the trees.

Bluestone paint, prepared according to the formula given below, may be used to act as a deterrent to females laying eggs. This would need to be applied about the end of September or early in October before the adult weevils emerge.

Bluestone Paint.

The formula is:—

Copper sulphate	1½ lb.
Lime	1 lb.
Water	2 gals.

The copper sulphate is dissolved in approximately 1 gallon of water, the lime is broken down with the remainder of the water, and is then poured into the bluestone solution to form the paint. — N.S.W. Agric. Gazette.

OFFERS WANTED

FOR 5,000 CASES
JONATHANS,
GRANNY SMITHS,
STEWARTS, ETC.

Apples grown on this land are famous for color and keeping qualities; also export Pears.

Hope Campbell

"Kongsi Orchard," Bittern, Vic.

'Phone Somers 3

VICTORIA

ORCHARD NEWS AND NOTES.

Spraying :: Fumigation :: Sowing Cover Crops.

SEASONABLE ORCHARD notes by Mr. J. L. Provan, B.Agr.Sc., Horticultural Research Officer, Victorian Department of Agriculture (in the Department's Journal) listed new season's Apples which appeared in January—Lord Nelson, Williams' Favorite and Emperor Alexander, also Gravenstein (from the northern districts).

The **canning Peaches** season commenced with Tuscan and Levis.

Peaches and Plums may be sprayed up to the day before picking, with ammonium polysulphide, one gallon in 80 gallons of water, plus 3 lb. of soft soap, as a protection against Brown Rot.

The Codling Moth is not so plentiful during January, and spraying may be postponed until February, when Summer brood appears. **This season, the value of lure pots has been most marked; by this means, two main flights** were observed up to the end of December.

Red Scale of citrus trees spreads rapidly during the hot weather, and an early attack on this pest will ensure a cleaner crop in the Winter. For heavy infestations,

Night Fumigation

with hydro-cyanic acid gas, in the form of Cyanogas, Calcid Briquettes, or Liquid HCN, is recommended. Where the infestation is lighter and the spraying equipment is efficient, thorough spraying with white oil emulsion, one gallon to 40 gallons of water, will give good control.

Orders for seed, to

Sow Green Cover Crops

in alternate lands, should be made early. Field Peas, Tick Beans, Barley and Vetches are popular types of cover crops, and the rate of sowing varies from one to one and a half bushels per acre.

Many **Plum, Cherry and Pear trees** in the smaller orchards and gardens have been affected by a small shining, black slug, with a large head, which eats the surface of the leaves and causes them to turn brown as if scorched by fire. This slug is known as the Pear and Cherry Slug, and often causes a lot of damage to foliage. It can be easily controlled by spraying with lead arsenate paste, 5 lb. in 80 gallons of water, i.e., 1 oz. per gallon.

Harcourt

Orchardists who depend upon supplies of water from the Coliban Reservoir are having an exceedingly anxious time this year owing to the totally inadequate supplies of water for irrigation purposes. The rainfall is below normal.

Harcourt producers have for many years forseen the difficulties arising from the inadequacy of the Coliban Reservoir, especially in view of the larger demand which has been increasingly made for general purposes on the limited supplies. For years past Harcourt producers have paid extra rates to ensure preferential treatment in any time of shortage. Now there is a general shortage, but fruitgrowers cannot obtain their needed supplies.

The growers of Harcourt, also producers at Bendigo and surrounding districts, as well as interested citizens have now united in a movement to urgently press for increased storage facilities. This is a national undertaking.

The State Rivers and Water Supply Commission has announced drastic restrictions in the use of water from the Coliban system. No water will be available for swimming baths or town gardens. More than 60,000 people are affected by the restrictions, including those living at Bendigo, Castlemaine and Malmsbury.

:: :: ::

The Harcourt Young Orchardists' Club is continuing its useful activity. Seasonable cultural matters and matters of policy engage their attention. Much useful information has been disseminated.

Owing to the dry season the crops are maturing two weeks ahead of normal.

VICTORIA.

Rain is urgently needed in some districts, but the State's crop on the whole will be substantial, and there will be no difficulty in fulfilling the export quota.

In Harcourt there is a shortage of irrigation water. Crops are maturing early, and unless rain falls soon, the district crop will be reduced.

Rain is also urgently needed on the Mornington Peninsula.

ELEPHANT BRAND SPRAY

Use "ELEPHANT" Brand Arsenate of Lead—Quality Stands Alone.

Insist Upon it!

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

We can supply all your Spray Requirements—ARSENATE OF LEAD (Paste or Powder), SPRAY SPREADER, SPECIAL COPPER MIXTURE, LIME SULPHUR, WHITE OIL, NICOTINE SULPHATE, RED OIL, Etc.

Extract from "BETTER FRUIT," March, 1937, by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: CODLIN MOTH COVER SPRAYS—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codlin moth control."

JAQUES PTY. LTD.,

Are Actual Manufacturers and Distributors of "ELEPHANT" Brand Sprays.

Factory: MADDEN GROVE, BURNLEY, E.1, MELB., Vic. Telephone: J 2008. **City Office: 31 Queen St., Melbourne.** Telephone: Cent. 756

INTERSTATE AGENTS:

N.S.W.—Producers' Distributing Society Ltd., Valentine and Quay Streets, Sydney.
Q'ld.—Buzacott's Ltd., Adelaide Street, Brisbane.
S.A.—Silbert, Sharp & Bishop Ltd., Rundle St. E., Adelaide.
W.A.—Westralian Farmers' Ltd., 569 Wellington St., Perth.
Tas.—Sole Agent for Southern Tasmania: E. R. Cottier Pty. Ltd., Davey St., Hobart. Northern Tasmanian Agents: E. R. Cottier Pty. Ltd.—Depots: R. Evans, Exeter & Cocker Bell Pty. Ltd., Devonport; Bell & Gerrard, Launceston.
N.Z.—Pizzey, McInnes Ltd., Box 1114, G.P.O., Auckland.

VICTORIA *(Continued)*

A WARM RECEPTION.

Statistical Research Worker Needs Asbestos Suit.

An earnest effort is being made to arrive at something like accurate statistics concerning Apple consumption in Melbourne. Such statistics are sadly lacking, and the industry will be in a far better position to improve the situation when the statistical horizon is cleared.

The Melbourne University has detailed one of its graduates to carry out the survey. Such action is warmly appreciated by all thinking growers. But our friend gets another kind of warm reception from growers who are afraid this enquiry has something to do with income tax or excess loads on lorries. One such grower consigned the research worker to the nether regions where there are no gluts in Peaches.

If our information is correct, some growers have supplied deliberately misleading information — doubtless with some fear in mind.

We would like to dispel all these fears and worries and would like all growers to know that nothing but good can come from the obtaining of accurate information, which is the first step towards improved marketing—and more money for growers, including the gruff boys.

RECIPE BOOK APPRECIATED.

The recipe book, prepared by the Australian Apple and Pear Council, is widely appreciated. Mrs. Osborn, Upper Beaconsfield, writes: "The Recipe Book is a very good production."

Mr. J. Gingles, fruitgrower, Humevale P.O., Whittlesea, writes: "My customers in the Mallee will appreciate the recipe book I am sure. Such publications are of very real help in increasing the sale of fruit."

FRUIT PACKING CHARTS.

For Yates Apples and Josephine Pears.

The Victorian Department of Agriculture has prepared a pamphlet on Fruit Packing Charts for Yates Apples and Josephine Pears.

The Yates is a smaller Apple than most other varieties that are sent overseas; the Josephine likewise differs from other varieties of Pears. For this reason special packing methods must be adopted in order to avoid bruising, one of the main troubles to be guarded against when packing fruit for export.

Copies of this pamphlet, which contains special charts and diagrams, may be obtained free on application to the Director, Department of Agriculture, Melbourne, C.2.

DIAMOND CREEK.

The 54th Annual Show of the Diamond Creek Horticultural Society will be held on Saturday, March 12. The Secretary is Mr. T. W. Harrington, "Illillangi," Diamond Creek, Victoria.

VICTORIA.

Campbell's Creek, 20/1/38.

Apple and Pear crops are showing the result of shortage of water. Rain is badly needed. Many growers are thinning heavily to bring on the size of the Apples and Pears left. Where spraying has been properly attended to, codling moth and black spot have been effectively checked.

SOFT FRUIT EXPORTED.

Pineapples, Plums, Peaches, Apricots and Cherries Carry to London in Gas Storage.

MUCH INTEREST has been created by a report that the fruit conveyed under special conditions on the S.S. "Brisbane Star" arrived satisfactorily in London.

Sir Hal Colebatch, the Agent-General for Western Australia, stated that the Apricots from the Kalamunda district, W.A., were unblemished, and as good as though sold in Australian shops a few days after picking Cherries from N.S.W., Victorian Santa Rosa Plums, and Queensland Pineapples, were in perfect condition. The Peaches from Victoria and W. Aust. deteriorated more quickly.

It is believed, however, that varieties of Peaches for export are available, and that these can be safely exported to arrive on the London market at a time of the year to secure best prices.

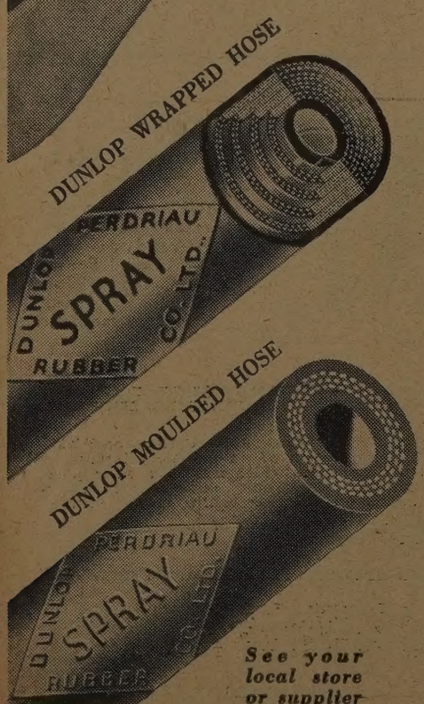
Another wise man ends spray hose trouble

Spray hose trouble says "Goodbye forever!" — when *Dunlop* Spray Hose comes on the scene.

Dunlop is the longest-lasting, most reliable brand you can buy. Definitely non-kinking, it resists to a remarkable degree both the ravages of time and the most corrosive spraying mixtures.

Dunlop Spray Hose is factory tested to 1,800 lbs. — a pressure six times greater than recommended for successful spraying. You will agree that a hose which will stand this terrific pressure, will also stand all the rough handling you can give it.

Don't let Spraying time catch you with a leaky old hose! Treat yourself to a new Dunlop Spray Hose. It costs no more. Dunlop Spray Hose is sold in two types — Dunlop Wrapped and Dunlop Moulded. Both are the finest available in their price class.



See your local store or supplier

Dunlop

SPRAY HOSE

DUNLOP PERDRIAU RUBBER CO. LTD., INCORPORATED IN VICTORIA

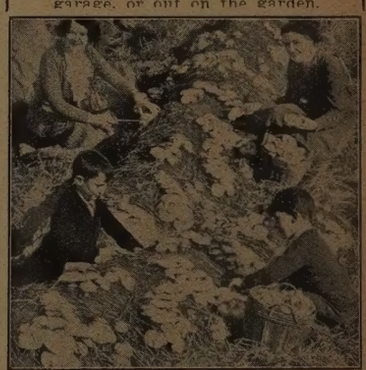
. . For . .

PROFIT or PLEASURE

EARN £4 to £6 PER WEEK

Growing Mushrooms

Underneath the house, in the shed, garage, or out on the garden.



We Guarantee to Buy All You Grow.

For Men and Women in any part of A/sia. Send 5/8 for one carton of "Mas" Spawn. Capable of growing over 40 lbs. of Mushrooms. Cultural instructions included.

R. MAS,

G.P.O. Box 3680 - SYDNEY

— THE —

BAVE-U

Power Sprayer

—— Keeps the Mixture in the barrel as even at the end as at the beginning of Spraying. ——

Information with pleasure.

Russell & Co.

Box Hill, E.11

Victoria

Australian Fresh Fruit Export Trade

Season 1937 — *Apples and Pears*

(Report by Mr. W. M. Carne, issued by the Department of Commerce, Canberra.)
(Continued from January issue.)

SECTION 5.

Russet in Apples.

The occurrence of russet in Apples provides a problem for inspectors. Lines consisting largely of Apples so russeted as to be very unattractive arrived in England in 1936, but particularly in 1937. The varieties most concerned have been Granny Smith, Cleopatra, Scarlet and Sturmer, with spray russet, and Dunns with natural russet. The latter was very marked in W.A. in 1937.

Natural russeting occurs mainly at the stem end and extends from the stem cavity. To a lesser extent it may extend from the calyx end. It is usually smooth, characteristic to the variety, and not very disfiguring. Up to a moderate extent, it may be regarded as characteristic of many varieties, and particularly of Newtown and Dunns. Its extent varies in different seasons, and in severe cases as in Dunns, it may be rough and ugly. An allowance of ¼ of the surface appears reasonable. Smooth natural russet from the stem or calyx ends is allowed up to about ½ on Washington Apples (⅓ on Newtown), while smooth net-like russeting on the cheeks is allowed up to 1/5th.

Other types of russet such as may be caused by frost, disease, or spray burn, are more serious than natural russet. They definitely disfigure the fruit, though to a lesser extent on red than on non-flushed surfaces. They are most serious on varieties like Granny Smith and Cleopatra which owe their standing in large part to their attractive clear skins. On Scarlets the trouble is less conspicuous owing to the colour, while in Sturmer a certain amount of russet is regarded as normal. This is due to the fact that the Tasmanian Sturmer is regarded as the normal type of this Apple.

Even in Sturmers, however, russet may be so severe as to make the fruit very unattractive.

The arrival of very unattractive lines in England particularly in 1937, which owed their unattractiveness to dark rough and extensive spray russet aroused unfavorable comment. Such lines should not be sent overseas. To reduce the likelihood of such lines getting away, the regulations should be strengthened. Under the existing conditions of numerous packing sheds it is undesirable to differentiate in the regulations between different types of russet, as is done in U.S. America. Packers would have difficulty in distinguishing the several types. It is therefore suggested that the regulations should be amended to allow the following amounts of russet of any type on any individual Apples. It is intended that the amended regulations should be applied with discretion. The test to be applied by the inspector is whether the fruit is seriously deteriorated in appearance. Greater amounts of russet might be well allowed if smooth and light colored. If the russet is rough and dark colored, the regulations should be enforced. This applies particularly to the Sturmer.

Recommended Permissible Amount of Russet on an Apple.

	Extra Fancy.	Fancy.
Sturmer and Dunns ..	1/10	1/4
Other varieties	1/10	1/5
G. Smith and Cleo. ..	Nil	1/20

It is interesting to compare the permissible amounts of what is defined as solid russet in Washington with the amounts of russet of any type at present allowed in Australia. Solid russeting includes all severe russeting, but not smooth characterisic russet extending from the stem or calyx cavities, or smooth netted russet. It includes "spray burn of a russet nature."

Assuming an Apple to be a sphere, the approximate permissible amounts of severe spray burn per Apple under existing Australian regulations can be calculated. Calculations show that the permissible amount is of the order of 7 to 12 sq. inches on 2⅛-2¾ Sturmers and 5 to 9 sq. inches on 2⅛ to 3 inch Apples of other varieties. As the Washington allowance is limited to the area of a circle, ½ inch in diameter or 1/5 sq. inch, the Australian allowance is from 25 to 60 times as much.

SECTION 6.

Maturity of Apples for Export.

The determination of the desirable maturity of Apples for export to the United Kingdom is not simple. It is obvious that the fruit should not be ripe. If too immature, the fruit is liable to develop before being retailed overseas, defects of immaturity which include wilting, dullness, lack of crispness, lack of flavor and liability in certain instances to pitting.

If too mature, the fruit is liable to be soft, lacking crispness and flavor and in some degree liable to fungal rots and breakdown of several types Generally, Apples are sufficiently mature when the original green shows signs of changing. There are two complications—

(a) the period and conditions of storage of fruit between picking and loading into the ship, and
(b) the conditions experienced by the fruit after loading.

As regards (a) the fruit, though immature when picked, may have developed a false ripeness before inspection. Such fruit not only cannot ripen properly, but is also already on its way to become wilted, or it may have been picked reasonably mature and have become far too forward before loading.

As regards (b) slow loading and cooling may start fruit on the way to wilting or forward condition in the ship before these developments are checked by cooling.

Still more important in the length of the voyage. Fruit which may carry and discharge in good order after a relatively short voyage (in point of view of time) may be unsatisfactory after a long voyage. On this point the evidence is clear.

Maturity is an indefinite condition as regards market requirements. It may be accepted that in the south of England people are satisfied to buy Apples which are hard, crisp, juicy and rather acid if attractive to the eye. From the midlands north a riper more mellow Apple is preferred. From the wholesalers' point of view the preference is always for hard crisp fruit. The ground color may be green and yellow green in dessert varieties but only green in culinary varieties. The point to be emphasised is that provided the fruit is hard, crisp and juicy, no objection is raised on the point of immaturity provided that colored varieties show sufficient and attractive coloring. The results work out that rather immature fruit, attractive in appearance, crisp and juicy, discharged from ships making quick voyages are welcomed on the market. Similar fruit carried by boats making slow voyages, usually exhibits a lack of crispness, a dullness, and even wilting, which result in complaints of immaturity though the ground color is normally more yellow than that of the fruit from the fast boats. At the same time it must be realised that immature fruit shipped by boats making slow voyages comes into competition with better colored more mature fruit of the same and even later varieties shipped by fast boats.

From the foregoing, it is evident that inspection should be related to the probable period of the voyage of the ship for which the fruit is being inspected.

Another point must be considered. Fruit from trees with light crops is much more subject to pit, break-down and most types of deterioration than fruit from good to heavy crops.

Hence in inspection, attention should be given to maturity in relation to size. Light crop fruit tends to mature before heavy crop fruit. Early in the season relatively large mature fruit, coming forward with or before smaller more immature fruits usually comes from light crop trees. Such light crop fruit when of varieties liable to deterioration should not be shipped, though permission may be granted to less mature smaller fruit the bulk of which comes from better crops.

The preceding statements may be summed up—Moderate immaturity provided the fruit is hard, crisp, attractive and reasonably colored (if of colored varieties) should not be used as a basis for rejection subject to certain conditions.

(a) that the boat will make a relatively fast voyage;
(b) that fruit of certain varieties is not larger than normal for good crops at the time of picking. Such fruit should be rejected even if mature owing to liability to pit. Such varieties include C.O.P., R.P., Cleo.
(c) That Granny Smith because of its high standing as a dessert variety and liability to pit when immature be not exported in immature condition.

Over-maturity presents similar difficulties. Moderate forwardness as shown by the ground color should not be a basis for rejection of fruit for boats making quick voyages, but should not be accepted for slow voyages. Culinary varieties which are not dual purpose varieties should not be accepted at any time when showing forwardness. Special care should be taken to reject anything more than slight forwardness in C.O.P., R.P. and Jonathan, especially when showing water core, even for quick voyages.

(Section 7 of Mr. Carne's report, in which he made sundry recommendations concerning case specifications, was discussed at the recent Conference of the Australian Apple and Pear Council held at Sydney, and a summary appeared on page 10 of the November "Fruit World.")

SECTION 8.

The Elimination of Apple Varieties from the Permitted List.

The number of Apple varieties coming forward from Australia is still far too many. Frequently, 20 to 30 are discharged from one ship. It must be understood that the number of varieties must be related to retailers' needs. These are restricted by his customers' demands, by the space available for Apples in his show windows or on show benches, and for storage. They are also limited by the fact that it is cheaper and easier for him to buy a number of boxes each of a few varieties, than a few boxes each of many varieties.

The average retailer must have two groups of Apples as a rule, a higher priced one selling at 7d. to 9d. per lb. and a lower priced group selling at 5d.-6d. per lb. Retailers catering for a cheaper trade will have most lines at 4d.-6d. per lb. and will only handle poorer lines of the dearer group. As regards Australian Apples, only Granny Smith and C.O.P. fall into the expensive group. The average retailer in a large city must have these if available. For the rest, he requires a good red dessert Apple, a good green to yellow dual purpose variety, and a green culinary variety. He may in addition stock a striped or less colored dessert variety. Outside the high-priced lines he requires only three or at the most four other varieties. Of course there are always exceptions.

The following list would fill the requirements of all good class retailers—

Special price of
7d.-9d. per lb.
G.S.
C.O.P.

Average prices 4d.-6d. per lb.

Colored.	Green to Yellow.	Culinary-green.
W.P.M.	Cleo.	Alf.
McIntosh Red	Dunns	F.C.
Jon.	L.P.	S.P.
R.B.	S.T.P.	
T.P.		
Del.		
Dhty.		
Yates		
Crof.		
Dem.		

In general, the other varieties are used as cheaper substitutes for the standard varieties given above. If prices for the latter are good, the others meet the need for the poorer areas. Fortunately for the retailer, the British public has little knowledge of varieties.

There should be a continuous reduction in the number of varieties permitted for export until the number is reduced to little more than necessary for the retailer to be able to exercise a reasonable choice, say 10 to 12 in any shipment.

In eliminating varieties, it must be remembered that we are in need of varieties that can be shipped early in the season, and a reduction in those shipped later.

I therefore consider that attention should be given to the possibility of permitting export of certain varieties early in the season only, and not in competition with later varieties. Once adopted, the principle could be gradually extended to limit the export seasons of all varieties.

On the ground that elimination should commence with varieties which are relatively little exported at present, the following recommendations are made:—

Alexander: An early rather attractive-looking Apple which is soft and very liable to bruise. It also probably gives the lightest weight per box of any Apple exported from Australia. Recommended for shipment up to middle of March only, or alternatively eliminated.

Pomme de Neige: A moderately early variety, very soft and liable to bruising if at all forward. Attractive when well colored. Recommended for shipment up to end of March only or alternatively eliminated.

Aromatic: An unimportant second grade Apple. Recommended for elimination.

Coleman: An unattractive early Apple inferior to Pomme de Neige, and like it subject to bruising. It is not known in U.K. and has no qualities justifying export. Only 123 and 126 boxes were shipped in 1936 and 1937, all from Tasmania. Recommend for elimination.

Jubilee: A rather attractive early Apple, but liable to bruising even more than Pomme de Neige if forward, being larger. Its eating and cooking qualities are poor. It is not known to most U.K. buyers. It has been

sent only from Tasmania, 47 boxes in 1936 and 183 in 1937. Recommended for elimination.

Prince Alfred: A large colored culinary variety which usually receives low prices. The public in U.K. do not regard colored varieties as cookers. Their export leaving them to be sold for dessert is therefore undesirable. Recommended for elimination.

Reinette du Canada: A good cooker but generally of very unattractive appearance. Extremely subject to pitting. Not popular with trade. Competes with the better Alfriston. Recommended for elimination.

Schroeder: A fair quality Apple little exported. Has no special merits. Recommended for elimination.

Stayman: A well-known variety in U.K. which receives quantities from North America in barrels. In U.K. it is regarded as a soft cheap Apple, liable to bruising. It has been sent from Tasmania (1,327 boxes in 1936 and 412 boxes in 1937), Victoria and Western Australia, and in both cases the fruit lacked the American color. The variety is too late to justify export. Recommended for elimination.

Wellington: An early cooker, well known in U.K. markets, where it is generally not liked. Usually arrives too forward when it is soft and very liable to bruises. If it arrives in good condition it has a definite demand in certain Jewish quarters. Recommended for shpment up to end of March, or failing that, elimination. 1,946 boxes sent from Tasmania in 1936; 827 in 1937.

White Winter Permain: A fair quality late Apple of which very little has been sent from Australia. Well known in U.K. from South Africa, and is the lowest priced variety from that country, fetching 6d. to 8d. less than Dunns. Not outstanding. Elimination recommended.

McIntosh Red: An early red variety well known in U.K. as it arrives in quantity from North America. Though considered rather inferior to the Jonathan in Southern England, it becomes more popular from the Midlands to Scotland. Soft when forward and liable to bruising. Its main advantage from the Australian standpoint is its earliness. It would therefore seem a desirable export variety to precede the Jonathans. Recommended for export up to middle of March only. More successful from N.S.W. than Tasmania (49 boxes in 1936, 121 in 1937).

King Cole: A very highly colored rather early Apple of fairly good flavor. Soft and mealy if forward. Like McIntosh Red, it should be sent early to avoid competition with the Jonathan. Recommended for export up to end of March only. Not known to U.K. market. Its undoubted qualities should not be allowed to be spoiled by later shipment.

Cox's Orange Pippin: Owing to the liability of light crop and large fruit to pit and break down, it is recommended that export should not be allowed of fruit over 2¼ inches in February or over 2½ inches later.

Ribston Pippin: Owing to the liability of light crop and large fruit to pit and break down, it is recommended that export should not be allowed for fruit over 2⅜ ins. in February and 2½ inches in March, provided that no fruit is accepted for export after middle of March.

Mobbs Codlin: An unattractive culinary variety which frequently arrives in bruised condition. Not popular, though well known in U.K. Competes with and secures lower prices than Alfriston. Recommended for elimination.

Cables—Monro, London Codes—A.B.C. 5th Edition and Bentley's

GEO. MONRO Ltd.

The Most Important Fruit-Distributing Organisation in the World.

COVENT GARDEN MARKET, LONDON, and SMITHFIELD MARKET, MANCHESTER

Other Branches: BIRMINGHAM, GLASGOW, WORTHING, SPALDING and HULL

Sales on Commission, by Private Treaty only.

Over sixty years' of Fruit Distribution.

We do not purchase.

Our Sale Rooms are the largest and most up-to-date in England; consignments are therefore displayed to the best advantage, consequently, our returns are the best.

We have specialised in the Sale of Australian Apples and Pears by expert salesmen for many years past, and we have the largest and best customers in Great Britain amongst our clients.

Bigger and better business is our objective.

We make advances to cover cost of freight, etc.

(Established 1862)

DIRECTORS:

Major Edwin G. Monro, O.B.E. (Chairman), Geo. Monro, C.B.E., Bert J. Monro, Captain J. Stuart Monro, Alex. J. Monro, and C. Cole.

Chief Agent in Aust.—Major H. Dakin, V.D., Goldsbrough House, Macquarie Place, Sydney, N.S.W.

Victorian Representative .. .. .. Esmond Russell Pty. Ltd., 395 Collins St., Melbourne.
Southern Tasmanian Representative W. H. Ikin & Son, Dunn Street, Hobart.
Northern Tasmanian Representative Bell & Gerrard, No. 200 Cimitiere St., Launceston.
West Australian Representative . . . The Westralian Farmers Ltd., Perth.

Sawdust Packing for Grapes

Jas. H. Gregory, Instructor in Fruit Packing.

In the past, when exporting Australian Grapes overseas, it has been necessary to use granulated cork as a filler. For many years Australia has been importing Grapes packed in sawdust from California during the off season. For a long time, a search for a suitable sawdust has continued in Australia. The main difficulty has been in overcomng wood taint which was absorbed by Grapes stored for lengthy periods necessary during storage and transport. Various kinds of sawdust have been used without success, but at last a treated type of sawdust has been obtained which, when packed with Grapes and stored for eighteen weeks, left them taint-free. The wood used was **Queensland hoop pine.**

Another difficulty has been to obtain the size and shape of granule in the sawdust, but with the co-operation of officers of the Queensland Forest Service this has been overcome. Only certain types of saws will throw off a suitable sawdust comparable with the sawdust used for fruit packing in America. For the present, however, only a limited quantity of this sawdust is available. The price, in consequence, is so high that a comparison of the value and the quantity required for a case with that of cork is not favorable enough, for the time being, to warrant the general adoption of sawdust. The cause of this is the very low recovery of sawdust of the required coarseness from the special saw in use. This sawdust is actually finer than that used in America.

Past experience of the use of cork leaves one with the opinion that it might be possible to use a finer type of dust-free sawdust for packing. This would mean a far greater recovery, and therefore a substantial decrease in price. To ascertain definitely if this is possible, further experiments are to be conducted during the coming season. In the meantime, growers are advised not to rush into using any type of sawdust which may be obtainable in their districts without first subjecting it to exhaustive tests as to its suitability for packing and freedom from taint.

The sawdust used experimentally was carefully sieved to remove the finest particles and then carefully dried until only a 12 per cent. moisture content remained. American sawdust is obtained from timbers such as redwood, spruce and Douglas fir. **Investigation will probably show that many Queensland timbers can be used for sawdust for fruit packing if treated correctly.** Unless definite taint-free dusts are obtainable, great damage might be done to the Grape export trade by the use of unsuitable sawdust. It only needs one or two consignments to show signs of taint, and arguments similar to those that arose in respect of butter boxes will immediately be used.

A short account of the experimental test follows:—

Two cases of Servante Grapes were packed on March 22, one with cork and the other with sawdust. These were placed in Messrs. Birt & Co.'s cold store under the usual trade conditions. The object was to ascertain the extent of the presence of taint, if any, in the sawdust, and also make a comparison between the merits of the sawdust and cork from the following viewpoints:—

(a) Taint; (b) Breakdown of fruit; (c) Adherence of packing material to fruit.

The following observations were made:—

(a) **Taint.**—With the cork-packed fruit a slight musty corky flavor was noticeable, due no doubt to a minute covering of the fruit with very fine dust. With sawdust no taint was noticeable in the sound fruit, but a few damaged berries had a faint wood taint, caused possibly by the damping of the wood with the fruit juice.

(b) **Breakdown of Fruit.**—The fruit in cork definitely showed greater breakdown. A few cases of "nests" of rotting berries were observed. There was a much greater incidence of mould development noticeable on those in the cork filler. The sawdust pack did not show any tendency towards developing "nests" of unsound fruit.

(c) **Adherence to Fruit.**—Sawdust definitely does not adhere to the fruit in the same way as cork. Apparently, it can be cleaned of fine dust better than cork. This causes the bunches to open up much fresher in appearance. Sawdust-packed fruit also maintained better its natural bloom on the skin, looking quite fresh in comparison with the fruit packed in cork.

The weight of sawdust used to the case was approximately 9 lb., as compared with 4 to 5 lb. of cork. These weights would, of course, vary with the type of bunch used for packing, so can only be taken as an example. With the present price of cork at 4½d. per lb., the total cost of packing a case would average about 1/6.

The fruit used was handled in two different ways. One section was picked on Friday morning, March 19, the other section about 5 p.m. on Saturday, March 20, a difference of approximately 30 hours before packing. When taken from the case, six weeks later, no appreciable difference could be observed in the appearance of the fruit of either lot. Stalks were slightly shrivelled in both lots. The Servante variety, on account of its tendency to tight bunches, is not altogether a satisfactory type for storage and long transit—the tightness of the fruit making it difficult to trim out the slightly damaged berries which are the causes of "nests" of rotted fruit. These "nests" in the case of this experimental fruit, consisted of up to five berries each.

To ascertain the extent of

Time Available for Retailers

to handle these Grapes when removed from storage, bunches were removed from the sawdust and cork and stored under ordinary room climatic conditions. At the end of four days the bunches were still good in appearance, but at least 20 per cent. of the berries were dropping from their stalks. Bunches left untouched in the packing material were in better condition when removed than those removed the first day, showing an approximate 10 per cent. fall of berries. From the commercial point of view, this is fairly satisfactory.

In analysing these results, it must be remembered that before the harvesting of this fruit very heavy rains were experienced, to the detriment of the keeping qualities of the Grapes.

In addition to this, a case of **Purple Cornichon** Grapes was packed on April 5, containing two sections, one packed in cork and the other in sawdust. This fruit was displayed in the fruit section in the court of the Department of Agriculture and Stock during the last Brisbane Exhibition, having been 10 days out of cold storage before the fruit was unpacked. The following observations were made:—

By the end of the exhibition, the Grapes had started to show signs of shrivelling with both types of filler.

The fruit in sawdust was definitely in better condition than that in cork.

The fruit packed in cork had a tendency to show "nests" of decayed fruit; the sawdust pack was comparatively free from this fault:

No signs of taint could be noticed in the fruit packed in the Queensland sawdust, but the cork-packed fruit had a very slight musty flavor.

Berries in both packs had reached their limit of storage, and showed a marked tendency for dropping from the stems.

Acknowledgment.

An acknowledgment is due to officers of the Queenland Forest Service for their co-operation in obtaining and treating suitable timber; to Messrs. Birt & Co. for cold storage facilities and attention; and to Mr. R. L. Perkins, of Ballandean, for making the fruit available.

—"Q'land Jour. Agric."

DRIED FRUITS NEWS

The Red Cliffs District

Review of its Development Value of Co-operation

(By Our Travelling Correspondent)

TEN MILES SOUTH of Mildura, on the main Melbourne railway, the largest ex-soldier settlement in the world. It is named Redcliffs. Over 700 of these men include representatives of many branches of the A.I.F., the Imperial Army, New Zealanders and British soldiers from India.

Founded in 1921, the first rows of vines were planted in August of that year. At present there are **over 30,000 acres of bearing vines,** with a mammoth pumping plant on the Murray River, whose waters are impounded by the weir at Mildura, which backs the water up for 45 miles, thus forming an enormous reservoir.

Sixteen years ago, Redcliffs township was composed of a row of bag huts, now it has up-to-date shops and rows of fine houses, and wide, tree-planted roads and streets.

The life of the settlement is the pumping station at Cliffside, some three miles east, whence water is pumped up 100 ft. above river level through a 2,000 ft. long main, of 6½ ft. diameter, to the main channel, which supplies 130 miles of distributing channels, **all concreted;** these folk benefiting by the experiences of the older settlements in this matter.

During the peak pumping period, 70 tons of Yallourn briquettes are consumed daily by these engines.

The reader will see by this that the cost of water is necessarily more than when supplied solely by gravitation. These costs vary a little, but generally it can be stated that all the water needed for the season, will be about 55/- per acre. Irrigators in other places will think that these costs are high, but must remember that nowhere else in Australia are such fine crops of quality Grapes grown suitable for Raisin making, or such facilities provided for processing and marketing.

In the early days, most of these ex-soldiers were imbued with the co-operative spirit, and they soon put their ideas into practice.

During 1922, about a year after the first vines were planted, the **Redcliffs Co-op. Society Ltd.** was formed, the object being to supply groceries, drapery, etc., to settlers at lowest costs, and later, when plantings came into bearing to erect a packing shed for processing and marketing their products—but were faced with the difficulty of finance.

The State Rivers and Water Supply Commission was approached with a request for assistance, which body was impressed and sympathetic, and after some negotiations, was successful in introducing a scheme for raising share capital to enable the company to commence operations. At that time most of the settlers were under lien to the Water Commissioners, and the Commission agreed to advance to each settler, under his ordinary advances account, £20 for express purpose of purchasing shares in this company.

After carrying on operations successfully for two years as general traders, a fire destroyed the premises and stock of the Society in February 1924.

At that time, however, the packing shed had been commenced, and it was decided to drop the general storekeeping business, there being satisfactory private enterprise at that time in Redcliffs township.

From small beginnings the company has steadily grown, until, at the present time, it is one of the largest co-operative enterprises in the industry.

In 1924, the company packed 413 tons of dried crop. In 1933 the pack

exceeded 8,000 tons,

and is the greatest tonnage handled by any one shed in this area. The main building is 293ft. x 185ft., equipped with two 60-ton stemmers and graders with up-to-date washing machines and an extensive box-making plant, the output is 150 tons per diem.

The management have by careful centralisation, achieved most economical packing operations. The receiving, processing, packing, making of boxes and storage, all under one roof is simplified by the railway running into the property.

The company carries a stock of 50,000 sweat boxes for use by growers, free of cost.

In 1931 the Redcliffs Co-op. Packing Co. Ltd. absorbed the business of Red Sun Packing Co., which house is near the main establishment, in consequence the company is able to confine packing of Currants and Lexias to this smaller shed, and so utilise the mammoth shed exclusively for **Sultanas,** which are the great products.

Dehydrators, for use in wet seasons, engineering and blacksmith shops, which do all repair work for the growers, have been added.

Portion of the garden of Mr. Armstrong, Redcliffs. His daughter, Margo, is shown in the picture.

The company has also a

citrus packing department

equipped with "Up-to-date" grader, 20,000 cases were marketed for clients last season.

The company also carries a large stock of growers' requisites and has a most up-to-date garage and service station, the turnover last year amounting to £60,000.

Since 1924, the **paid-up** capital of the company has more than doubled and now stands at **£46,500,** and during the last eleven years, the grower shareholders have been paid in dividends and bonuses approximately £100,000.

In addition to paid-up capital, a **reserve fund** of £10,000 has been created during the last four years.

The **average annual** value to the growers of fruit handled by their own company is approximately £350,000, and the whole revenue from Redcliffs is probably over £500,000 per annum, and has reached £560,000.

Only bona fide growers can hold shares in this company. Shareholders elect their own directors by postal ballot, annually. **The whole of the fruit is marketed through co-operative channels.**

The present board of directors, who have been continuously in office for

Gerrard Sales and Service
GERRARD WIRE TYING MACHINES CO. PTY. LTD.
Head Office and Works: 19-24 IRELAND STREET, WEST MELBOURNE
Branches and Agencies:
269 Sussex Street, Sydney
19-25 Makerston Street, Brisbane
Molton Street, Adelaide
GERRARD
The Tie That Binds

... FOR MEN ...

Many men have the impression that a Savings Bank Account is suitable only for women and children, and that it is neither convenient nor dignified enough for business men.

Certainly those business men who have many payments to make over a considerable area need cheque accounts, but even those, in common with all other men, will find the Savings Account a most useful and convenient aid to money accumulation.

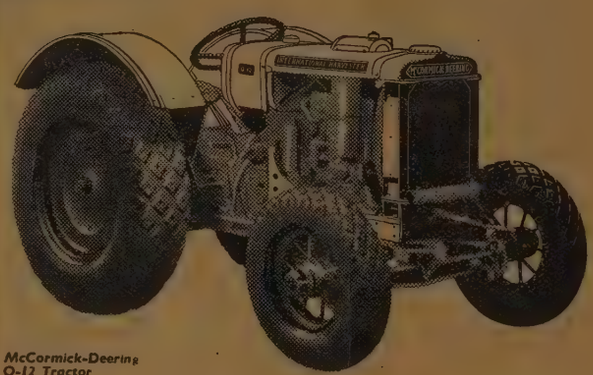
There is nothing undignified in the transaction of Savings Bank business, but there is interest profit to be earned on such monies as would otherwise lie idle.

Throughout Australia there are Branches and Post Office Agencies of the

Commonwealth Savings Bank of Australia

(Guaranteed by the Commonwealth Government.)

Sound, Practical Investments for the ORCHARDIST



McCormick-Deering O-12 Tractor

INTERNATIONAL HARVESTER Equipment

McCORMICK-DEERING O-12 TRACTOR—The orchardist's own mobile power plant Designed low, short, narrow — expressly for clean work between trees and under branches. Engine features include replaceable cylinders, high-tension magneto with automatic impulse starter, down-draught carburetion, fuel, oil and air cleaners, and other refinements. This compact, quality-built tractor will do all your tillage, haulage and belt work at low cost.

Write to us for catalogue of this or any Tractor or TracTracTor in the McCormick-Deering line, or consult your local agent.

Tractor Orchard Mouldboard Plough

The International 8-7 tractor orchard mouldboard plough is made in 2 and 3-furrow sizes. The 2-furrow can be converted to a 3-furrow and vice versa. Special drawbar permits ploughing right up to base of trees

Tractor Disc Harrows

Made in 5½ and 6-ft. sizes McCormick Deering tractor orchard offset disc harrows are designed for right and left hand turns . . . angling the discs is controlled by the operator from the tractor seat . . . There is nothing projecting above discs to damage overhanging branches.

Tractor Orchard Offset Disc Harrow

Power Sprayers

The Ideal power sprayer is entirely self-contained, the engine and pump being mounted on a sturdy truck into which the vat is built. Available in 2 and 4-wheel types, powered by an "Ideal" 2 or 3-h.p. engine. Can always be relied upon to give dependable service

Two-Wheel Power Sprayer

INTERNATIONAL HARVESTER COMPANY OF AUSTRALIA PTY. LTD.

(INCORPORATED IN VICTORIA)

5-11 PYRMONT BRIDGE ROAD, CAMPERDOWN, SYDNEY

A1586

the past 8½ years are Messrs. F. W. P. Hammet (chairman), A. Popleton, A. Mackinnon, A. C. Macdonald, H. Youngs, W. Cavendish, all returned soldiers and original settlers.

The management of the company for the past 8½ years has been in the capable hands of Mr. H. R. Sloan as general manager; Mr. F. Weatherburn, secretary and accountant; Mr. W. Watts has charge of packing operations.

In furtherance of their progressive policy, the directors recently sent their general manager, Mr. H. R. Sloan to the United Kingdom, Canada and California, for the purpose of studying marketing and other problems of the dried fruit industry.

Viticultural Notes

"Rolling on" and Oidium.

"Rolling on" and Oidium are worthy of review at the present time, as they occupy much time in the vineyard during mid-Summer. Recent tests have proved that "tipping" and "topping" in lieu of "rolling on" have a depressing effect on the growth of the vine, and the ripening of the fruit. Further, it has long been known that the sugar finally found in the Grape is due to the elaboration of organic compounds by the leaves, hence the suppression of foliage can only have such an effect.

Where the vines grow vigorously, however, it is often difficult to accomodate the large bulk of foliage on the ordinary trellis. If the canes are gathered together like the fibres in a rope and then rolled on the wire, so many leaves are buried from the direct sunlight, and therefore rendered inactive, that the effect is not particularly different from topping, except that the prospects for disease development in the massed foliage are greatly enhanced.

The specifications for the ordinary Sultana trellis were evolved when the average grower expected about 3 tons of green fruit per acre. To-day, owing to improved cultural methods, many growers regularly produce more than double this quantity, and in many cases trellises are too low to effectively carry the extra foliage which accompanies heavy production, and the massed growth increases humidity, making conditions more favorable for the development of disease.

Oidium.

Years ago the island of Madeira was famous for viticulture. To-day its production is negligible, because its climate is so favorable to the fungus Oidium, that the known specifics will not effectively control it. Preventive measures were also regularly included in the annual routine, when viticulture was flourishing in the wetter districts of Victoria, but to-day most vignerons in the drier areas have largely forgotten the trouble.

This disease seems to disappear from districts for long periods, then reappear unnoticed, and, possibly favored by mild weather and the presence of numerous spores, it suddenly becomes an acute problem for several seasons. Of late, it has been affecting some of the Murray and the wetter wine-making areas very seriously, in fact, doing more harm than all the other diseases considered collectively.

Growers are very apt to report that the standard treatment for Oidium control is ineffective, **but in most cases it can be noted that they have started sulphuring too late.** In situations where Oidium appears practically every year, it is a mistake to await the appearance of the disease. It works slowly and unostentatiously at low temperatures, and the first sulphuring should be given when the shoots are about 9 inches long, and at this stage 6 to 10 lb. of sulphur per acre will be sufficient.

As the day temperatures rise to about 70 deg. F. the disease grows actively. This activity increases progressively as the seasonal daily temperatures rise to 95 deg. F. Temperatures above 100 deg. F., accompanied by a dry atmosphere, gradually destroy the fungus without the aid of sulphur. Where sulphur is used as a preventive, about three sulphurings at intervals of three weeks are given in the Spring, using about 6 lb., 20 lb., and 30 to 60 lb. per acre, respectively.

The fungicidal fumes of sulphur are not rapid in action during cold weather, but at a temperature of 77 to 80 deg. F., these fumes will destroy the fungus in four to five days. In ocasional seasons more than three sulphurings are necessary. Lime-sulphur is rapid in action during cold weather, but dangerous during warm weather. Colloidal sulphur is probably valuable, but observations to date have shown that one spraying combined with Bordeaux in mid-November allowed a very heavy growth of Oidium to be observed one month later.—D. G. Quinn, Viticulturist, in "Victorian Journal of Agriculture."

AUSTRALIAN DRIED FRUITS SALES IN GREAT BRITAIN.

The Chairman of the Commonwealth Dried Fruits Export Control Board (Mr. W. C. F. Thomas) advises that for the five weeks ending January 13, the sales of Australian dried fruits in Great Britain amounted to 1,124 tons. The average price of 689 tons of Currants was £25/0/9, and of 433 tons of Sultanas £41/19/10 per ton. The clearances of Currants included a heavy quittance of low-grade stocks. The balances unsold or afloat are 1,548 tons of Sultanas and 1,856 tons of Currants.

GRAPE VINE CATERPILLARS.

It has been found that the larvae of the moth Porthesia hololeuca, which attacks Grape vines, may be controlled by spraying vines with arsenate of lead, using 1 lb. of arsenate of lead powder in 40 gallons of water. These applications may be conveniently combined with one of the routine fungicidal sprays.

AUSTRALIAN DRIED FRUITS SALES IN GREAT BRITAIN.

The Chairman of the Commonwealth Dried Fruits Export Control Board (Mr. W. C. F. Thomas) advises the placement of a further 335 tons of Australian Dried Fruits in Great Britain during the week ended January 20. The bulk of the sales comprised Currants, of which 300 tons were sold at an average of £26/8/6 per ton. From the limited stocks of Sultanas available, 35 tons were sold at an average of £45/8/11 per ton. The whole of the Lexias shipped to Great Britain have been cleared at an average price of £45/18/10 per ton, the improved price being due to the absence of Spanish competition.

AUSTRALASIAN JAM CO. Pty. Ltd.

NEW COOL STORE.
80,000 CASE CAPACITY.
Cool Storage is offered both for Pre-Cooling or Long Storage.
Available end of March.
Lowest Rates.
Garden St., South Yarra, Vic.

DRIED APRICOTS.

1938 Prices Reduced.

NEW SEASON'S PRICES for dried Apricots, issued by the Australian Dried Fruits Associations, show a reduction of 1d. to 1½d. per lb. on last year's opening rates.

The prices for 28 lb. boxes are:—

	Fancy. Choice. Standard.			
	Box. 1 lb.	Box. 1 lb.	Box. 1 lb.	1 Box. 1 lb.
5-crown	1/3	1/2	—	—
4-crown	1/2	1/1	1/0½	—
3-crown	1/1	1/–	0/11½	—
2-crown	1/–	0/11½	0/11¼	—
1-crown	—	0/10½	0/10	—
Slabs	—	—	—	0/11
"Plain"	—	—	—	0/10½

The prices are for main capital cities and producing centres, plus the usual additions for shipment to other ports.

The A.D.F.A. reports that the drying season for Apricots has been favorable, and the fruit is of good quality.

EMPLOYMENT BUREAU AT MILDURA.

As the result of a conference between the Minister for Labor (Mr. Mackrell), and representatives of the fruitgrowers, an employment bureau will be established at Mildura, thus enabling growers to obtain all the labor they require and preventing the flooding of the district with men seeking work. Growers should notify the Department, through the bureau, of the number of laborers required and the days when work will be available.

SYDNEY ROYAL SHOW.

Big Easter Event :: Many Sections For Fruit.

As on previous occasions, fruit will form an important section of the exhibits at the forthcoming Royal (Easter) Sydney Show. There will be the usual district collections of Apples for which £200 is offered in prizes. In the section, "Apples Packed for Export," the varieties named are Rome Beauty, Granny Smith, Jonathan and Democrat. Prizes are also offered for each of two dozen of these varieties, also Cleos, London Pippin, Dunns, Delicious, Tasma, Stayman, Yates, McIntosh Red. Substantial prizes are also offered for district collection of Pears as well as Pears packed for export, which include P.T., Winter Cole, B.B., Josephine and Winter Nelis.

A Cup will be presented to the most successful exhibitor in the Fruit Classes. **In commemoration of the 150th anniversary of the founding of Australia, a Commemorative Bronze Medal will be presented to the most successful exhibitor in the fruit section.**

An appreciated feature will be the "Orient" cup competition; two cases of Apples to be displayed at the show and two cases sent to London for judging there. The fruit for London will go forward to the "Orford" on April 23. Sections are also included for Lemons, Grapes, etc.

Schedules are obtainable from the Secretary, Royal Agricultural Society of N.S.W., Sydney. All entries close on Friday, March 11, 1938.

New South Wales

Murrumbidgee Irrigation Area

GRIFFITH ITEMS - - CROP PROSPECTS

(By Our Correspondent)

THE FRUIT SEASON for all types of soft fruits has been far earlier than in previous years, and large quantities of fruit have been consigned to Sydney canneries from the Griffith Area, while at Leeton the Co-operative Cannery has also been exceptionally busy with the earlier rush of stone fruits.

Dried Tree Fruits.

At the Griffith end of the Area, a considerable quantity of fruit was dried owing to the exceptionally hot spell of weather which occurred during early December, and the season from a drying point of view has been exceptional, with the result that the sample, although perhaps on the small side in some cases, has dried out with a clear bright color and has made a very fine dried product.

Prunes are also ripening earlier this year, and many very good crops of D'Agens are to be seen, and the fruit is larger generally than in previous years. Robe de Sargeant Prunes are, however, on the light side, and in consequence will give a very large dried fruit when processed, although the tonnage will probably be considerably less than last season.

In the past there has been a tendency among growers to ignore the very important

principle of thinning

their fruit, but each year this practice is attracting more notice, and where it has been regularly adopted the results are most noticeable.

The setting this season of both **Apricots** and **Peaches** was exceptionally heavy, and where the thinning has been neglected the result is most noticeable, much of the fruit having clustered and has not matured to the required size.

Good samples of Elberta Peaches have been dried, but the fresh fruit market has not resulted in satisfactory prices being obtained. Angelina Plums have realised fair prices for good fruit, and the canneries have accepted a fair quantity of this fruit for jam purposes.

The Apple Crop,

of which the principal variety grown is the Granny Smith, is very heavy, and owing to the heat, has suffered from scald where the fruit was exposed, nevertheless the fruit has sized up well, and some growers have thinned out their larger fruit to send away as cookers.

Pears, both Packham and Williams, are carrying good to heavy crops, the Packhams being in most cases well formed and large fruit.

Currants suffered from the effects of a fall of rain late in December, many of the berries which colored early being split, and the result has been that combined with the continued spell of hot, dry weather, a very early picking has been made.

Sultanas are carrying in most cases very good crops, and with the present satisfactory drying conditions likely to continue, growers are hoping to harvest one of the best crops for many years.

The Irrigation Areas have produced large crops of Sultanas in several years, but there has usually been a break in the weather towards the end of the season which has mitigated against growers obtaining either the full crop, or the best of samples. This year should show that with the better conditions existing for processing this fruit, that a good tonnage and a high grade can be produced, but for all that most of these growers who have several acres of Sultanas are working them over to Reisling and other varieties of wine Grapes.

The Murrumbidgee Areas are Attracting More Visitors

every year, and the importance of these settlements is becoming realised. During the present month visiting growers from the Murrabit Settlement of Victoria have inspected the Area, accompanied by Mr. Duncan Brown, Horticultural Instructor of the Victorian Department. All the visitors were greatly impressed by what was shown them, and the very great extent of planted areas on these Areas is not generally known in the other States.

Griffith has been selected as one of the chief towns of N.S.W. for the 150th Anniversary Celebrations, and the numerous attractive items which are being arranged by the energetic Secretary of the Anniversary Committee, Mr. D. G. Dobson, should attract a large number of visitors from all the States to this progressive centre.

The Celebrations, which will commence on Monday, March 13, will continue until Monday, March 21, and a Pigeon Shooting Match has been arranged for Monday, March 7, although the celebrations proper will only commence on the later date mentioned.

Viticulture.

In spite of a certain amount of loss among wine and table Grapes, most varieties are showing heavy crops, and a very good vintage is anticipated.

Cornichon Table Grapes suffered probably more damage than other varieties, but on well worked farms where the soil moisture was kept up, the crops should still yield good returns, although probably careful clipping will have to be maintained to secure a first-class pack. The Area under this variety is of considerable extent.

Ohanez Grapes are carrying good crops, and where growers have adopted the overhead trellis, so generally used in Western Australia, the results have improved very much over the lower standard trellis such as was previously used. More growers are signifying their intention of adopting this practice of training their vines.

The total area on these Areas of the Ohanez is not a very great one and during past years some blocks of this variety have either been worked over or planted up with stone fruits.

Almonds have been planted to a large extent during past seasons, and with the very valuable research work conducted by officers of the Plant Breeding Department, under the Direction of Mr. Wenholz, in the matter of pollination, the results obtained are improving considerably.

Mr. Poggendorf at Yanco has numerous experiments in hand, and his work on the improvements and crossing of different varieties of Rice is also of particular interest to visitors.

The **Rice** paddocks are now looking very promising, and the vivid green of these fields attracts the eye with most pleasurable effects after driving through miles of dry, dusty roads before arriving at this oasis of the back country.

Cyclone at Leeton.

Severe damage was caused to orchards and property by a devastating cyclone at Leeton on January 26.

In some cases Grape, Apple, Peach and Pear crops have been practically wiped out. Homesteads were unroofed, and telegraph and electric light lines were flattened.

Many trees throughout the district were snapped off like carrots.

QUICK GROWTH.

"I think it very strange," said the housewife, "that the Potatoes you bring should be so much bigger on the top of the basket than they are at the bottom of it."

"Well, ma'am," said the smallholder, "it comes about this way. The Potatoes grow so fast that by the time I get a basketful dug, the last ones are much bigger than the first ones."

Cool Storage Space for Fruit

Growers and Exporters are advised that such space is available, and may be booked by application to:—

ASSOCIATED COOL STORES

21 Queen Street, Melbourne. 'Phone: MU 6225

INSULATION

WRITE FOR PARTICULARS—

• "ZERISTO" Cork Sectional Pipe Covering for Brine Pipes, Ammonia Pipes

• Granulated CORK for insulating Cool Chambers, etc., and for Fruit Packing.

W. H. BREWER PTY. LTD., Blackwood Street, North Melbourne

Asbestos and Cork Insulation Manufacturers. F 2058, F 6452

The Most Extensive Manufacturers in the British Empire of

RUBBER STAMPS

Stencils, Marking Devices, Inks & Acme Stamp Pads.

We make a Big Range of Special

Fruit Case Marking Sets

No. 9 Spraying Machine

We also Manufacture and Supply

Spraying Machines

for All Purposes.

Let us know your requirements, and we will quote you. Ask for Spraying Equipment Price List

EXCELSIOR SUPPLY CO. LTD.

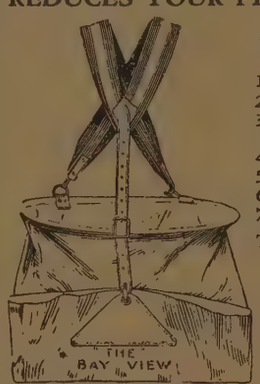
160 George St. West, SYDNEY, N.S.W. — 278 Post Office Place, MELBOURNE, VIC.

"Esco House," 50-52 Victoria St., WELLINGTON, N.Z.

The Famous

BAY VIEW FRUIT PICKING BAG

REDUCES YOUR PICKING AND PACKING COSTS.



Bag Closed Ready for Picking.

NOTE THESE POINTS ABOUT THIS EXCELLENT LABOR SAVING DEVICE.

1—Can be used for any class of fruit.
2—Allows the use of both hands in picking.
3—No bruising of fruit. Weight carried on shoulders instead of back of neck.
4—Full way opening for discharge.
5—No hooks to injure trees.
6—No complicated fixings to get out of order.
7—Packs into small compass when not in use.

THE COST IS MORE THAN RECOUPED IN ONE SEASON.

Mr. Val Kerr, one of Victoria's leading orchardists, writes:—

"I have been using Bay View Bags for eight years, and find that they expedite considerably the work of picking. They are comfortable to wear, and the fruit is handled with a minimum of bruising."

Sole Manufacturers:

FOTHERINGHAMS PTY. LTD. 118 CHARLES ST. LAUNCESTON . . .

Victorian Agents:

F. R. MELLOR, 440 Elizabeth Street, Melbourne, C.1.

You Can't Get Good Prices *for* Bruised Fruit

PROTECT YOUR FRUIT WITH

ANTI-BRUZE CORRUGATED FRUIT PADS

MADE IN TASMANIA

Obtainable from Leading Distributors throughout Tasmania

In the following Sizes and Quantities:—

DUMP CASES—		
SIDES (Plain or Vented)	17 x 14	500's
	17 x 13	500's
TOPS AND BOTTOMS	17 x 8	1,000's
CANADIAN CASES—		
SIDES	17 x 10	1,000's
	17 x 10½	1,000's
TOPS AND BOTTOMS	17 x 11	1,000's
PEARS—		
SIDES	13 x 6	1,000's
TOPS AND BOTTOMS	13 x 12	500's

Also Combination Packs of:—

DUMPS	CANADIAN	PEARS
(500 17 x 13)	(500 17 x 10)	(334 13 x 6)
(500 17 x 8)	(500 17 x 11)	(334 13 x12)

Fruit Industry Enquiry in New South Wales

Evidence at Batlow and Bathurst

Hail Insurance Needed :: Effect of Soil Erosion :: Improvements Advocated in Sydney Markets.

Interesting evidence has been given recently before Mr. J. E. McCulloch, who is conducting an enquiry into the fruit industry in New South Wales.

When at Batlow, Mr. H. V. Smith, general manager of the Batlow Packing House and Cool Store, gave evidence at length, and was cross-examined on many matters of detail.

He said that the Batlow Packing House, which was established in 1924, was equipped with modern plant capable of handling a pack of up to 200,000 cases per annum. The average output was 120,000 to 160,000 cases annually from growers' orchards. The cool storage plant had a capacity of 60,000 cases and was almost invariably used to full capacity.

With regard to marketing, the Batlow Co-op. had attempted direct selling to the public through retail shops, but after a fair trial they were convinced that dealing through the wholesale trade was better.

Export was important, as it cleared the market and saved storage expenses. The consignment business had been largely replaced by forward selling. The loss of the European markets was quite serious.

There was need for better local and district organisation to secure wider distribution and increased consumption. Some form of authority was necessary for the licensing of agents; in his opinion the number of agents operating in the Sydney markets was excessive.

Appreciation was expressed for the services of officers of the Department of Agriculture for their efficient services; he advocated a continuance of the Orchard Tax, and expressed appreciation to the Fruitgrowers' Federation for their activity and sincerity to improve conditions.

Mr. Smith also told of losses through frost and hail. It had not been found possible to get satisfactory hail insurance. **The most essential need of the Apple and Pear industry in New South Wales was a State-wide hail insurance cover,** which, unfortunately, private enterprise seemed indisposed to provide except to a limited extent in certain favored districts.

Mr. H. Heathcote, a settler on the Kunama Soldiers' Settlement for the last six years, stated that one of the serious problems on the settlement blocks was that of **soil erosion.** Much of the soldier settlement area had been planted with unsuitable varieties, and there was little hope of payable blocks until correct varieties were used, and then only when they were in full bearing. Of the original forty soldier settlers there were now only ten or a dozen left.

Mr. A. J. Arnot stated he had prevented soil erosion by the cessation of ploughing, and covering the orchard with Subterranean and Red Clovers. This practice was satisfactory over the past three years. By installing a cool store in his own property substantial savings were effected.

Mr. Charles Buchele stated that nowhere else in the State did the Apple and Pear trees grow so large. Trees reached full maturity at twenty years and remained at full production for another thirty years. Over eight bushels a tree was a fair average though the marketable average was lower, due to frosts and hail. Witness approved of the Orchards Tax and expressed appreciation for the services of the Fruitgrowers' Federation. Spraying material should be standardised. If the number of Sydney agents were reduced by half it would be better. Export was becoming unprofitable, owing to competition from other countries. An export bounty was necessary.

Mr. F. J. Dellavalle recommended the control of the city markets by a Commission to prevent the marketing of inferior fruit. A State controlled insurance scheme was necessary.

In Bathurst, evidence was given by Mr. E. Ray, a member of the Board of the Fruitgrowers' Federation of N.S.W. The average production of marketable fruit per tree in the Bathurst district was from two to two and a half bushels. There were severe hail storms in 1933, '34 and '35. The maximum area of orchard one man could work efficiently was fifteen acres. Costs of production and marketing were 5/10 a bushel, thus fruit would require to return an average of 7/- a bushel at the market to give the grower a clear return.

Codling Moth was still a serious problem, continued Mr. Ray. He doubted the value of local cool storage on a grower-owned basis. A time limit should be set for the marketing of certain varieties. The Sydney markets were out-of-date and needed ventilation, resulting in losses by fungus.

Mr. J. N. Wark, of White Rock, placed his production cost at 2/- per case, plus packing, transport and marketing at 3/10. He considered twenty acres was the maximum one-man orchard.

Mr. B. W. Goddard and other witnesses gave evidence. Production costs were stated to be too high, and marketing arrangements in Sydney were criticised.

The Commissioner inspected orchards in both the Batlow and Bathurst districts.

NEW SOUTH WALES.

THE LATEST REPORT from the N.S.W. Department of Agriculture re crop prospects is as follows:—

Pome Fruit (Inland): Both Apples and Pears are growing nicely in Northern Tableland districts.

At **Batlow,** the Delicious crop is showing better than estimated, Granny Smith and Jon. expected to give good yields. Other varieties fair to good. Pears—Winter Cole, Williams, P.T. and B.B. growing nicely.

Around **Crookwell,** Apple crop fair. London Pippins patchy to light.

Prospects satisfactory around **Orange.** Granny Smith moderate to good; others medium to fair. Pears: Williams and Packhams good, others moderate.

Griffith, M.I.A. Apple crop showing better than expected, though generally lighter than last season. There was heavy shedding of Pears owing to heavy winds.

Stone Fruits:

Apricots were exceptionally heavy: fairly large quantities were dried; color bright and quality good. Peaches—heavy crops. D'Agen Plums heavier than anticipated, quality excellent. Robes very light.

Bananas:

Medium marketing during January from Tweed Heads and Macksville. Moderate to good from Woodburn; satisfactory crops at Mullumbimby and Lismore.

Passionfruit:

Crops good at Tweed Heads; quality excellent. Medium crop at Macksville.

(For Citrus Notes, see Citrus Page.)

Tasmanian News and Notes

Apple Crops Heavy and in Forward Condition :: Shipping Problems :: Rising Production Costs :: Need for Uniform Cases, Canadian Type Favored :: Manufacture of Canned Apples, Cider and Apple Juice :: Interstate Grading Regulations, Elimination of "D" Grade Recommended :: Plebiscite Re Continuance of State Fruit Board :: Improvements Needed in Handling at London :: More Orderly Arrival of Ships Advocated :: Plight of Raspberry Growers, 1,000 Tons of Fruit Wasted.

(By Our Correspondent)

SEASONAL CONDITIONS have been unusual this Spring and Summer. After an unusually hot dry spell in November (one day being hot enough to burn the Apples on the trees), we have had more rain than usual in many localities, with alternate hot spells and cold S.W. winds, this of course has been rather bad for the Apple and Pear crops.

In some localities black spot has done some damage, there have also been local hail storms as late as mid-January.

Early Apples such as Gravensteins are now ready for market.

The early export varieties are very forward, and of good quality. The C.O.P. are specially good up the northern end of the island.

Berry Growers' Problems.

The position of the Raspberry growers has been most unfortunate as the factories only took a proportion of their crops. **It is estimated that 1,000 tons went to waste.**

Bitter disappointment was felt at the refusal of the Government to finance the processing of the balance of the crop, their failure to do so will put a few more off the land on to relief work.

Much concern is felt with regard to the oversea space, especially for the early part of the season. We hear that one of the Blue Star line had a collision with one of Commonwealth and Dominion line, and will be delayed a month or so, this is most unfortunate as **the early varieties are not only further advanced than usual at this date, but there are good crops of them,** and failure to get sufficient space to deliver them in their proper season will result in the loss of several thousand pounds to the growers, even if space is provided later in the season. To date, nothing definite has been made public as to the shipping programme.

The increase in the cost of paper and boxes is a very serious matter, and apparently cannot be avoided. The prices offering for Apples F.O.B. appear to be a little lower than last year in spite of the additional threepence freight rebate.

The margin of profit is apparently getting smaller from year to year. In spite of improved get up and high grading standards, the price comes lower and costs go up.

Uniform Cases.

The case question "Dump v. Canadian," is still a fertile source of argument. However, as the shipping companies tell us we must standardise our case, it looks as if the Canadian type will have to be adopted. The larger F.O.B. orders appear to be for Canadian type.

Apple By-products.

Owing to the large quantities of Apples that go to waste annually, the Port Cygnet growers, with commendable zeal, are forming a co-op. society to process their waste Apples. I understand that the Sturmer is the best variety for solid pack pie Apple, and it is the intention to convert the surplus of this fine variety into that popular product. I wish them every success.

Another channel for disposing of the waste Apples has been opened up by a few energetic growers who have formed a co-op. society for the manufacture of **cider, Apple vinegar and unfermented Apple juice.**

The cider is of high quality, and the other products are equally good. They have appointed Swift & Co., of Sydney, their agents there. The success of the venture seems assured as sales are increasing rapidly.

Interstate Grading Regulations.

The proposed modification of the N.S.W. regulations by which the minimum size will be raised in many varieties and only three varieties allowed in "D Grade" after May 31 is generally considered a move in right direction by Tasmanian growers, **but it would have met with greater approval if D Grade had been abolished altogether,** as last season's experience on the Sydney market has shown clearly that it is no use sending unwanted sizes and varieties and fruit past its prime. The financial losses last year from breakdown have been heavy.

The State Fruit Board.

The Fruit Board Act provides that a plebiscite must be taken within three years of its inception to decide whether it is to continue in existence or not, accordingly it will be held in February, 1938.

Opinions seem divided on the subject, but I fancy the Board will continue to function as there is nothing better to take its place and most growers are convinced of the necessity of having some central growers' organisation to express the views of the majority.

The Fruit Board's London representative, Mr. T. J. McKinley, has been touring Tasmania addressing a series of meetings on the position of the industry, and the faults that should be remedied both at this end and in the United Kingdom. One bad feature at the London end appears to be the **rough handling** and delay in the barges taking the fruit from the ships to the markets.

There appears to be a lot to be said in favor of Southampton as a port of discharge and distributing centre. Rough handling and unnecessary delay in delivery are faults that must be remedied. Our marketing methods would apparently benefit by a little more system and co-ordination in deliveries.

One serious fault is the haphazard way the ships arrive causing congestion of the market at times, thus counteracting some of the benefit that might be obtained by the quota system.

We are hoping that the President of the Apple and Pear Council (Mr. J. B. Mills) will shortly visit Tasmania and address a few meetings on subjects of vital interest to the industry.

Seasonable Orchard Notes

Apples Developing Well Despite Unseasonal Conditions :: Vigilance Needed for Pest and Disease Control.

Hobart, January 14, 1938.

APPLES HAVE DEVELOPED well, and, from present indications, will mature approximately a fortnight earlier than last season, states Mr. P. H. Thomas, Chief Horticulturist, Tasmanian Department of Agriculture, in his current seasonable notes. Rainfall in northern and eastern districts was considerably in excess of normal, but in the Huon, about average. Rainfall records from representative centres are as follows: Hobart, 256 points, average 209; Franklin, 276, average 293; Launceston 437, average 193; last year at the same period Hobart registered 430 points and Franklin 390.

Some severe storms were experienced in the north, and serious wash-outs occurred in E. Tamar districts as well as flooding. Hail also ruined fully 25 per cent. of the crop in certain localised areas, both in the north and south.

Pests and Diseases.

Recent rains and rather muggy weather has been responsible for an increase in Black Spot, though up to the present the main fruit areas have escaped serious infection. **Growers are advised, however, to maintain a careful watch for any spread of this disease and many are adopting the practice of routine colloidal sulphur applications as a preventive.**

Brown Rot has made its appearance in several Apricot areas and would probably have been very much more prevalent had not spraying been carried out earlier in the season. Areas situate in districts of heavier rainfall on the south and west slopes appear to be most affected, and the heavier rainfall recently has increased the spread. The only preventive measures which can be taken at present are the removal and destruction of all affected fruit, both on the tree and on the ground. All pickers should be supplied with a small bag in which to deposit any diseased fruits encountered. In this way the later ripening fruit will be protected from infection to some extent. Care must be taken to exclude any affected fruit (however slight) from the packed cases.

Owing to the higher temperatures during the early part of the season, Codling Moth is prevalent, and conditions so far appear to have favored its development. Arsenate of lead sprays are still being applied and the control should be further assisted by picking and destroying affected fruit.

Most growers have got the "Canary Fly" well under control, but a watch should now be kept for the appearance on the underside of the leaves of the young larvae of the second brood. When the majority of these have attained three-quarter size, nicotine sulphate at a strength of 1 pint to 80 gallons should be applied.

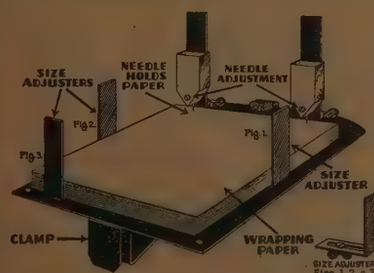
Berry Fruits.

With the completion of Strawberry picking, beds should be cleaned up and hoed at the earliest opportunity so that the plants may be enabled to make good crowns for next year.

Runner beds should be severely culled for virus disease, and parent stock plants selected in older beds where necessary. All other runners being removed from less desirable types.

To those growers desiring assistance in the matter of plant selection and elimination of virus disease from parent stock beds, the services of an officer of the Fruit Division will be arranged on application to the Department of Agriculture.

The Improved "FASTPAK" Paper Holder



Has now been improved by:—

Providing a bracket attachment which enables the machine to be clamped on either the Grader or box.

Adjusters have been extended to allow the insertion of a full ream of paper at the one operation.

Double-Needle Control ensures that there is no waste or unsightly torn corners.

Adjustable to take various sizes of paper.

Remarkable for its speed and smoothness and definitely Improves Packers' Tallies.

Manufactured by and obtainable from—

Southern Victoria Pear Packing Co. Ltd.

BLACKBURN, VICTORIA

or Interstate and District Agencies.

Tasmanian Orchardists & Producers Limited

"The Producers' Co-operative."

General Merchants, Shipping and Export Agents

Reciprocal Agents:

Overseas Farmers' Co-op. Federation Ltd., London.
Producers' Co-operative Distributing Society Ltd., Sydney.
Committee of Direction of Fruit Marketing, Brisbane.

Distributors, Local and Overseas for

Tasmanian Butter - Apples - Pears

Suppliers of all Orchard and Dairy Requisites. Enquiries invited.

7 Murray Street, Hobart, Tasmania

T. W. KIMBER, Managing Director.

Fruit Research in Tasmania

Pruning :: Stock Trials :: Apple Variety Trials :: Re-working :: Pest Control.

IN RESPONSE to our request, Mr. P. H. Thomas, Chief Horticulturist of the Tasmanian Department of Agriculture, forwards a report upon fruit research work that is being carried on in that State. As will be seen, it covers various trials, pest control, reworking and other avenues of fruit culture.

Pruning.

A long-range experiment in the pruning of Democrat, Granny Smith, and Cleopatra Apples; Williams and Winter Nelis Pears; Blenheim and Moorpark Apricots, at present in the sixth year, has produced some very interesting results. Long, medium, and short pruning systems have been adopted, and fruit production, girth measurements, and other records taken. In addition, Granny Smith and Cox grown on the "modified leader" method are now in their third year.

Stock Trials.

Several experimental areas of the Apple varieties, Cox, Jonathan, Cleo., Worcester and Democrat worked on a complete range of East Malling Stocks have been set out, and are now in their fifth year. In addition, certain stock types have seen selected, and Granny Smith, Golden Delicious, Crimson Crofton, etc., worked on these. Results so far tend to bear out the experiences obtained in the work at the East Malling Research Station, and varieties on Nos. II., IX., and VII. are already in bearing.

Apple Variety Trials.

From time to time new Apple varieties and bud sports have been imported and propagated, and local raised seedlings placed under observation. In addition, a complete range of cider varieties was imported from Long Ashton three years ago, and are now undergoing propagation for future plantings along English lines.

Physiological Diseases in Apples and Pears.

In co-operation with the Council for Scientific and Industrial Research a fairly wide field has been covered both in the orchard and the store, and reports are being published from time to time.

Reworking of Fruit Trees.

Extensive work is still being carried out in the matter of refurnishing system and scion treatment in Apples, Pears, Apricots and Plums. The most recent results favor the "V bark graft," and this system was adopted very largely by growers during the past Spring. In the control of "dieback" (Polystictis versicolor) in Apples and Pears, the glycerine, bichloride and cyanide of mercury mixture as used in North America has given good results during the last two years.

Pest Control.

Experiments conducted in co-operation with the Entomologist and Mycologist cover research on such pests as the Light Brown Apple Moth (C. pomonella), "Canary Fly" (T. Australis), Black Spot (V. inaequalis) and Brown Rot (Sclerotinia cinerea). Dusting experiments for the control of vegetable pests are also being carried out.

Frost Protection.

Alarm thermometers of both the open and closed circuit types are under trial, and different heaters and their distribution studied.

Nuts and Berries.

Work at the **Experimental Plot** is at present mainly confined to the acclimatisation and propagation of new and imported varieties of Hazel nuts and berry fruits. Several of the more promising types are at present undergoing small scale trials prior to distribution, and one Raspberry and one Currant have reached commercial scale planting.

Virus Diseases.

Considerable work is under way with regard to the control of **virus diseases in Strawberries** and isolated selected stock plots are being gradually built up in the different berry fruit districts.

Transportation Tests.

Experiments in the **carriage of berry fruits** to Interstate markets were continued last season, and regular trials of all varieties by sea and air in a variety of different containers were made. Results to date indicate that provided the right methods are adopted even the more perishable types can be landed on the market in a fresh and attractive state.

Australasian and New Zealand Shippers

. . . wishing their fruit to be handled in the largest and most up-to-date premises in Covent Garden, should consign their APPLES, PEARS, PLUMS or ORANGES to:—

T. J. POUPART LTD.

COVENT GARDEN LONDON, W.C.2.

Our world-wide reputation for efficient salesmanship will be still further enchanced by these structural advantages which we now offer to shippers—old and new.

At Southampton also a programme of re-building and modernization has been completed, placing at the disposal of our senders the most spacious warehouses in that port.

We would remind exporters desirous of shipping to Bristol, Liverpool, Hull and Glasgow that we are established at all these centres.

Special Department for the sale of Canned and Dried Fruits and Fruit Pulp at 46 Fish Street Hill, London, E.C 3.

REPRESENTATIVES

TASMANIA: MR. ERIC E. BURGESS, 88 Collins Street, Hobart.	NEW ZEALAND: CO-OPERATIVE FRUITGROWERS OF OTAGO LTD., P.O. Box 163, Dunedin. C.1.
VICTORIA: MR. C. S. ANDREW, 153 William Street, Melbourne.	NEW ZEALAND: OTAGO PROVINCIAL FRUITGROWERS' COUNCIL, P.O. Box 53, Dowling St., Dunedin.

NEW SOUTH WALES:
SUNNYSIDE ORCHARDS LTD., Hay Street, City Markets, Sydney.

Tasmania

Exeter, 25/1/38.

Hail storms in scattered districts of Northern Tasmania caused harm to crops in individual orchards. It is estimated by Mr. H. A. Turner, Government Horticulturist at Launceston, that over 55,000 cases will be lost on the West Tamar Valley, the hail visitations were in the vicinity of Exeter, Sidmouth and Swan Point. The Apple crops of Mr. Bert Court, a well-known grower, suffered severely. Growers in the Tamar Valley Co-operative Co. will lose around 25,000 cases. There were also hailstorms on the East Tamar and at Lilydale.

Mr. L. S. Taylor, manager of the Tamar Valley Co-op. Co. states that there is a splendid crop of Cox's Apples in the Tamar Valley. The crop is well forward and is of excellent quality. Sales for export have been freely made, the only problem being that of securing sufficient shipping in February to export the fruit.

BOOK REVIEW

"Fruit Annual."

A copy of the "Fruit Annual" has been received from the British Continental Press, 80 Fleet-street, London. This book contains 365 pages and includes much statistical and general information of value to the trade. A world-wide survey is given of the fruit trade throughout the world, including import duties into the principal countries, also a vocabulary of fruit trade terms in English, French, German and Spanish. Other subjects include market fruits and their values, calendar of fruit supplies, the British markets for imported fruit, fruit by-products, etc.

This book, which is published at 10/-, post free, is the first issued by the publishers, and is a creditable production. Doubtless, future editions will be revised, for as regards Australia, at least, there are some noted omissions regarding firms engaged in the fruit trade, whilst names are included of firms no longer in business. A form is included in the book for any such errors to be rectified in the 1938 edition. Altogether the book is an interesting and helpful production, and will be found to be handy for reference.

THE MARKET GROWER

OFFICIAL ORGAN OF VEGETABLE GROWERS' SOCIETY OF VICTORIA.
ALSO OFFICIAL ORGAN OF THE KOONDROOK & BARHAM TOMATO GROWERS' ASSOCIATION.

Vegetable Growing in Victoria

Victorian Vegetable Growers' Society Active :: Sunday Labor Objected to :: Why Sell Beetroot Singly Instead of by the Bunch :: Inequitable Water Charges :: Onion Marketing Board Criticised :: New Wages Log.

(By Our Correspondent.)

Moorabbin, Vic. (19/1/38).

At the last annual meeting of vegetable growers it was resolved to change the name of the Society from the Market Gardeners' Society to the Vegetable Growers' Society. It was felt by many growers that the latter name would more clearly define the operations of our industry, and members were urged to use the title of "Vegetable Grower" on all their legal documents and in any case where they had to define their occupation.

The meeting was very well attended by members and considerable discussion took place on various matters concerning the industry.

Why Sunday Labor?

One of the most discussed was question of the large amount of Sunday labor that was being done by many growers throughout the State, and it was felt that the fact of the Queen Victoria Market being open on Monday morning was a large factor in encouraging men to gather their produce on Sunday.

It has often been argued by the market authorities that vegetables for Monday market were gathered on Saturday afternoon, but from experience we know that the longer vegetables are out of the ground the more they lose their bloom, so it naturally follows that with the keen competition that there is, growers are forced to gather their produce at the latest possible moment to have it looking as well as their neighbour's when they come to expose it for sale.

In an endeavour to overcome this Sunday labor, a deputation to the Markets Superintendent was arranged. Messrs. Thiele and Aspinall represented the fruitgrowers, Messrs. Thomson and Bovle the greengrocers, and Messrs. H. V. Barnett and C. C. A. George, the vegetable growers: the deputation was unanimous in their request for the closing of all the market on Monday mornings except the portion known as the fruit market, which it was agreed there was no need to close.

The deputation was very sympathetically received and the Superintendent promised to bring the matter before the Markets Committee, but as yet nothing has been done to indicate that it will be closed, so the trouble must still receive our attention.

Another matter that caused considerable discussion was the method adopted by growers of

Selling Beetroot Singly

instead of by the bunch—a system which caused much confusion among buyers, especially country buyers, who were not conversant with the method of count as compared with other bunched stuff.

It was pointed out that the method of counting singly was brought about in the days when the long-rooted variety was grown, and the roots grew as large as a small Mangel, when a dozen bunches were far too much for anybody to buy, but now that the Turnip-rooted variety was pretty universally grown most buyers required a dozen bunches, which really meant they had to ask for three dozen as counted singly, but often people ordering from the country would order one dozen Beetroot, expecting to get one dozen bunches, and instead would receive twelve single Beetroot.

As this is the only bunched vegetable which is counted in this way, it was felt desirable that a change should be made to bring all the counting under one method.

The Price of Excess Water

charged by the Metropolitan Board of Works was also freely discussed, the amount being 1/- per thousand gallons, but as many growers who are under the State Rivers and Water Supply Commission receive their water for six shillings per acre foot, it was contended that the Board should make a reduction in their charges, as it will be seen that at 1/- per thousand gallons the charge comes out to many pounds sterling per acre foot.

The

Office-Bearers

elected for the year were—President, Mr. H. V. Barnett; Vice-President, Mr. G. Ryan; Commiteee, Messrs. J. Mills, E. A. Le Page, C. James, J. Hawkes and J. Stocks; Secretary and Treasurer, Mr. C. C. A. George.

An Advisory Committee to the Onion Board were also elected as follows: — President, Secretary, and Messrs. R. T. Marriott, J. Mills, R. Hall and E. A. Le Page.

Onion Board Criticised.

The Onion Marketing Board came in for very severe criticism, members generally expressing dissatisfaction with the Board's operations. Growers who for many years have been successfully selling their own produce do not take kindly to the idea of handing over their produce to a Board who need 66⅔ per cent. profit to carry on operations, and the fact of the Board finishing its year's operations with an overdraft of £65,000 does not speak too well for the operations and ideas of marketing Onions in this way.

A requisition for another poll to be taken is being prepared and will be forwarded to the Minister of Agriculture in the near future. A deputation is also being arranged to the Minister, asking that the Act be amended, so that growers of half an acre and more shall be entitled to a vote at the next poll; at present a grower must have planted two acres of Onions to be entitled to a vote, thus putting many men off the rolls who are very definitely entitled to vote when it becomes a question of them having to hand over their produce to any body they may disapprove of.

The Vegetable Growers Employees recently waited on the Minister for Labor and asked that they be brought under

A Wages Award.

They were very sympathetically received, and a suggestion that a radius of twenty miles from the G.P.O., Melbourne be the boundary was made.

The award, which is in force for Flower Gardeners, but which exempts Market Gardeners, provides for a week of forty-four hours and a wage of about £4 per week for a full hand. As this is the only award in force from which a comparison can be made, growers will get some indication of what the award might be if brought in.

The Master Vegetable Growers recently waited on the Minister and asked that if the award were introduced that the radius would be State-wide, as vegetables grown throughout the State all found their way to the one clearing house, viz., the Queen Victoria Market, and it was no uncommon thing for a grower from fifty or one hundred miles from Melbourne to stand alongside growers coming from within the twenty-mile radius, both having the same class of vegetables to sell, but grown under entirely different conditions if the award only operated in the small radius of twenty miles.

A young farmer took an elderly relative with him to a football match.

"Why is that man walking away?" asked the old lady.

"He's been sent off the field for a foul," replied the young man.

"My goodness," exclaimed the old lady, "one fowl won't go far between twenty-two men."

Protect Your Plants

FROM SNAILS, SLUGS, APHIS, AND ALL GARDEN PESTS WITH

PESTEND SUPERFINE

(Tobacco Dust)

Expert gardeners and growers recommend the use of PESTEND SUPERFINE—either for dusting, spraying, or for dressing the soil.

Used in a spray-duster or pressure-gun, PESTEND SUPERFINE adheres better, lasts longer, and costs less than ordinary spraying powders.

PESTEND SUPERFINE Tobacco Dust is non-poisonous to plants, inexpensive and easy to use. Try it out yourself!.

Obtainable in 4 lb., 28 lb., and 1 cwt. bags at all produce stores, or direct from W. D. & H. O. Wills (Aust.) Limited.

5869-3-7

"Plane" Brand Dusts

"Beauty" (Knapsack) Dusters
"Superior" (Rotary) Dusters

ARE MANUFACTURED BY

N. N. McLEAN Pty. Ltd.
395 Queen Street
MELBOURNE

ONION MARKETING.

The Victorian Onion Marketing Board recently held a series of meetings reviewing the financial position which arose out of last seasons operations and methods by which growers over a series of years can recoup the Commonwealth Bank for advances in excess of realisations. There is an overdraft of £65,000.

A census has been taken of the areas planted in Onions in 1936-37 and 1937-38, and particulars have been compiled of Onions produced in 1936-37, and the prospective yield in 1937-38.

The Chairman of the Onion Marketing Board, Mr. T. Carmody, states it is necessary for 95 per cent. of the Onions produced this season to be placed in the Pool to enable the Board to operate during January. The Minister for Agriculture, Mr. Hogan, addressed a series of meetings of Onion growers urging their support for the organised marketing of their products.

:: :: ::

Arrangements have been completed for financing the 1938 Onion crop (provided 95 per cent. of the Onion crop is under the control of the Board). Unless this percentage is forthcoming, the Onion Marketing Board receives difficulty in maintaining the present prices, i.e., approximately £3/4/- per ton to merchants at Spencer-street Station for Western District "Globes."

:: :: ::

The Minister of Agriculture (Mr. Hogan), has addressed meetings of Onion growers upon the desirability of sending all their produce through the Marketing Board this year. There were 6,686 acres under crop, and the estimated yield was 53,395 tons, against 49,000 tons last year. Victoria could only consume from 25,000 to 30,000 tons.

The Commonwealth Bank was advancing £2 per ton, Mr. Hogan added, provided that 95 per cent. of the amount produced was guaranteed to the Marketing Board for disposal.

After Mr. Hogan's address at Leongatha, a resolution was adopted urging all growers in the district to sign the agreement so that the Board may function this year.

:: :: ::

Co-operation With Merchants.

On January 26 there was a conference between merchants, representatives of the Onion Board and the Department of Agriculture. The Minister of Agriculture (Mr. Hogan), who presided, stated subsequently, that merchants had unanimously agreed to work in co-operation with the Board.

Fruit Trees & Fruit Tree Stocks

Splendid Stock of Healthy Plants Available.

APPLES, PEACHES, PEARS, PLUMS, APRICOTS, CITRUS, ETC., PACKED AND DESPATCHED TO ALL PARTS OF THE WORLD.

Overseas Orders receive careful and prompt attention.

Catalogue printed. Code A.B.C., 5th Ed.

C. A. Nobelius & Sons Pty. Ltd.

Gembrook Nurseries, EMERALD, VICTORIA

'Phone: Ringwood 171.

NAILING MACHINES

Smooth in Operation and of Proved Reliability.

Illustration shows our latest model 6 track machine. An economical unit for making up, including centre board nailing.

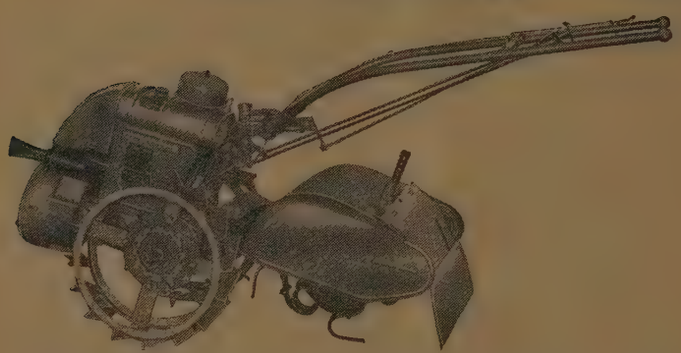
D. W. BINGHAM & CO. PTY. LTD.

Manufacturers of Modern Machinery of guaranteed workmanship and performance.

Address: **224-226 Normanby Road, South Melb.**

Tel.: MX 2693-MX 1351. Telegrams: Bingmach, Melb.

ROTOTILL that waste *into* Fertile Soil



THERE'S no waste with a "Simar" Rototiller. Weeds, manure, fertiliser, and cover crops are thoroughly pulverised and mixed evenly with the soil — making valuable manure accessible to your plants.

More than 10,000 use and value the Rototiller, because it provides a perfect seed bed in one operation, and no other machine can approach the low operating cost or high standard of cultivation it performs. The sharp pointed, fast revolving tynes leave no possibility of forming HARD PAN; they leave a broken bottom, which allows surplus water to drain freely away.

Your fruit, vegetables, and crops will increase in Quality and Quantity when you cultivate with a Rototiller. Write for Particulars TO-DAY! Inspect in actual working conditions on your own property—the "Rolls-Royce of Rotary Cultivators"

The "SIMAR" ROTOTILLER

Sole Australasian Distributors:
MOTOR TRACTORS PTY. LTD.
Cnr. Bridge & Young Streets, SYDNEY.

Victorian Distributors:
McGREGOR WHEEL GRIP & ENGINEERING Pty. Ltd.
67-75 Roden Street, MELBOURNE.

Mushroom Culture

Method of Propagation.

THE MUSHROOM does not possess roots in the ordinary sense of the term. The spore, on germination, gives rise to a thin, threadlike structure, and masses of these threads, known as mycelium, and which are easily recognised by their white color, spread through the soil or the compost and secure the materials which eventually are required for the development of the Mushrooms.

The spawns of commerce consists of this thread-like fungous growth, which, together with compost, is either compressed and dried in brick form, or it may be obtained in the form of "pure cultures," that is, cultures of the fungus which have been grown in bottles of sterilised compost.

Pure culture spawn was first prepared in Australia by the Biological Branch of the N.S.W. Department of Agriculture in 1931, when supplies of reliable spawn were unobtainable. Spawn was developed from native Mushrooms, and subsequently, through the courtesy of overseas workers, cultures of the best commercial types grown in the United States and England were introduced.

Pure culture commercial spawn and brick spawn of local manufacture are now available, but the Department's spawn is being maintained to ensure that spawn of the highest quality shall always be available in this State. It is derived from the spores of specially selected Mushrooms and is grown under specially-controlled conditions, and is available in the semi-moist condition. Previously it was available at a nominal price, but now is sold at 7/6 per quart, a rate which is comparable with that charged in other countries for small quantities of spawn.

With ordinary care, production of Mushrooms can be accomplished without any real difficulty, but best commercial returns can only be expected when the growing conditions conform with certain requirements, when proper precautions are taken to guard against the development of pests and diseases, and when all overhead expenses are kept as low as possible. Mushroom growing offers definite possibilities as a profitable sideline, states a departmental pamphlet, but only after experience has been obtained should production be contemplated on a larger scale.

The pamphlet referred to, which has recently been revised and enlarged, may be recommended as a reliable guide to those considering Mushroom culture.

It is obtainable free on application to the Department of Agriculture, Box 36a, G.P.O., Sydney.

Potato Culture

Manuring :: Immature Potatoes for Seed :: Cultivation :: Disease Control.

IN his report analysing the results of many years of research, Mr. J. T. Ramsay, Victorian Government Potato Expert, gives much practical advice to growers.

Manurial trials which have been conducted show that 3 cwt. super. and 1 cwt. ammonia has proved itself the best application, giving double the yield obtained from unmanured plots. The average cost of this dressing is 8/- for each ton increase in yield.

The best method of selecting seed is from the field when the crop is green, and seed can be chosen from the healthiest, most vigorous plants, and producers of the most marketable-sized tubers. Seeds chosen thus must produce better plants than seed chosen promiscuously from an assorted heap. **The best time for harvesting Potatoes intended for seed purposes is when the leaves are turning yellow.** This method had resulted in an increase of 22 per cent. per acre.

It has been found that boxing is the ideal system of storage. Although the initial outlay is heavy, growers have found that seed treated in this manner will mature from two to three weeks earlier than bagged or pitted seed, and will provide a stronger and healthier stand. Also, every tuber stored in standard seed boxes was fit to plant, while there was 38 per cent. waste in the seed stored in bags.

In the cultivation tests, inter-row cultivation has been demonstrated to be of practical value, the results showing an average increase of approximately 1 ton an acre for each additional horse-hoeing.

Striking results in the control of collar stem rot and common scab have been obtained by dipping the seed—preferably in an unsprouted condition—in a solution of formalin of a strength of 1 lb. of formalin to 20 gallons of water for 90 minutes; with sprouted seed the quantity of water should be increased to 30 gallons. The cost is small, one bottle of formalin costing approximately 2/6, and being sufficient to treat one ton of seed. Dipping is strongly recommended to growers.

:: :: ::

These tests were carried out at Millbrook, the main Potato-growing area in Victoria. In addition to the foregoing, tests are being carried out with green manuring.

Soil Cultivation

A demonstration of the Simar Rototiller was held on the property of Mr. Healey, South-road, Moorabbin, Vic., on Tuesday, January 4, 1938.

There was a representative attendance of leading market gardeners, and appreciation was expressed regarding the manner in which the Rototiller operated in the matter of deep cultivation, eradication of Couch Grass, and in providing needed pulverising of the soil, thus givng the correct tilth for market gardening. A perfect seed bed was laid in one operation.

The Simar Rototiller as now offered to producers has been considerably improved on the models previously used in this country about 11 years ago, and its value for orchard purposes is emphasised. Further demonstrations will be held from time to time in fruit-growing and market gardening areas.

The latest report by the U.S.A. Department of Agriculture states there are 34,600,000 bearing Orange trees (5 years and over) in the U.S.A. Forty-five per cent. has not reached full production, and 26 per cent. were in the 5-10 year group. An average production for the next 5-year period of 55 to 60 million is forecast. The average for the past 5 years was 54,044,000.

South Australian News and Notes

INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

The South Australian Fruitgrowers' & Market Gardeners' Association

Minutes of Executive Meeting, Held January 28, 1938

AN EXECUTIVE MEETING of the S.A. Fruitgrowers' and Market Gardeners' Association was held in the Association Board Room on January 28.

There were present Mr. W. J. Bishop (President), Messrs. N. T. Hobbs, F. Hughes, W. H. Ind, H. H. Schultz, R. A. Cramond, G. H. Parsons, J. G. Potts, G. T. Pitt, R. Ridley, I. R. Adams, C. W. Ragless, G. H. Schultz, J. B. Randell, R. Hunter, A. Elliott, F. G. Gill, H. N. Wicks, E. L. Giles, R. G. Hannaford, and Secretary.

Apologies received from Messrs. C. W. Giles, G. Strange, L. J. Wicks, G. Jennings, F. C. Staniford, T. Playford and H. B. Robson.

Correspondence. — Letters acknowledging the Association's correspondence re Sugar Rebate were received from Messrs. J. L. Price, M.H.R., A. J. McLachlan, M.H.R., N. Makin, M.H.R., A. G. Cameron, M.H.R., Jas. McLachlan, M.H.R., C. A. S. Hawker, M.H.R., A. O. Badman, M.H.R.

Letters also received from Export Sugar Committee re Export Sugar Rebates Messrs. Hansford Reeve & Co., Brisbane; Burns, Philp & Co. Ltd., re export of fruit to Hull, England.

The Department of Agriculture wrote re importation of soft fruits, re figures of fruit in cold storage; statement relative to fruit crop prospects.

Correspondence also received from Department of Commerce re St. Edmundsbury Co-op. Bacon Factory Ltd. and from Mr. T. Playford, M.P., concerning case to be submitted to Transport Commission.

Report of Case Committee.

Mr. W. J. Bishop reported that a conference had been held with the wholesale merchants, although the merchants were not prepared to show the value of cases separate from the fruit on their dockets, they were quite prepared to pay for all cases. The value of the case would in all instances be added to the ticket price of fruit. Any grower who was not receiving value for his case was asked to report same to the Association. Dodgers and posters had been distributed to members, and the success of the venture depended on the individual.

Discussion on the matter revealed that the case question was generally better.

Celery Section.

Mr. N. T. Hobbs reported that the Committee of the section had been re-elected, and preparations were being made for the coming season. Early Celery was now being exported to Brisbane and Sydney.

Soft Fruits Section.

Mr. F. Hughes reported that the Section regretted not being able to do anything regarding interstate markets, and the Section was exploiting every avenue to further the interests of its members. He brought forward a recommendation from the Section, "That the Executive instruct the Fruit Pool Committee to have a meeting to make necessary arrangements for the operating of the Pool in future, should it be required."

It was the most difficult year remembered with Apricots and Plums, and regret was expressed that the Pool was not able to operate this year. The Section was not satisfied with the arranging of Xmas markets, and recommended to the Association that steps be taken to see if more satisfactory arrangements could be made in future.

Mr. F. Hughes moved "That the Fruit Pool have a meeting, and report to the Executive." Sec., Mr. A. Elliott, and carried.

Xmas Markets.

After discussion on the matter Mr. G. H. Parsons moved "That the Association take steps and approach the Market Co. to see if two grower representatives can be placed on the Committee to fix Holiday Markets." Sec. Mr. C. Ragless. Carried.

Mr. R. A. Cramond moved "That Mr. G. H. Parsons interview the Market Secretary on the matter." Sec. Mr. F. Hughes. Carried.

Cherry Section.

Mr. W. J. Bishop reported that the season had finished, and had proved rather disappointing. Although the season had started promisingly, bad weather had a reverse effect on the crop. Export to Victoria and West Australia was a record, and had proved very satisfactory. Factories had taken more than ever before, and at a higher price than the previous year. Mr. C. W. McRostie was anticipating a visit to Adelaide in the near future, and was desirous of meeting the Section.

Apple Section.

Mr. J. B. Randell reported that the Apple and Pear Section had held a meeting, and a resolution had been passed concerning the sale of inferior fruit. A committee had met Mr. A. G. Strickland to see if the Regulations concerning this quality could not be raised to a higher plane. Mr. Strickland had the matter in hand.

South Australian Fruit Marketing Association

A MEETING of the Executive Committee of the S.A.F.M.A. was held at the Secretary's office, Adelaide, on January 28, 1938.

Present.—Messrs. F. F. Redden, R. H. A. Scott, D. Norsworthy, R. O. Knappstein, A. G. Strickland, J. G. Millar, H. J. Bishop, R. G. Hannaford, M. Vickers, G. Mack, C. A. Stewein, A. R. Willsmore, H. M. Charlick, J. H. Dunning, F. B. James, J. B. Randell, W. W. Miller, F. Rolley, R. A. Cramond, S. M. James, and the Secretary, P. R. B. Searcy.

The President, Mr. H. J. Bishop, occupied the chair.

After passing accounts, Mr. H. J. Bishop had to leave. Mr. J. B. Randell took the chair.

Correspondence.

Letter dated December 21, from N.S.W. Dairy Products Board, advising that Mr. M. P. Dunlop, M.L.C., would supply full particulars of the Empire Producers' Conference.

Letters from Australian Apple and Pear Export Council dated:—

December 20, conveying thanks of the annual conference to the State Publicity Committee for their helpful services in connection with the Apple Publicity Campaign.

December 24, enclosing report dealing with the Fruit Grading Conference held in Sydney on December 8, 1937.

January 17, enclosing letter from Department of Commerce re trade with India.

January 6, re appointment of Australian Government Commissioner in Netherlands, India, and enclosing copy of letter from Department of Commerce re moisture content of Pear boxes.

January 27, acknowledging telegram from meeting of Apple and Pear exporters, re-affirming necessity of quota for 420,000 cases.

It was agreed that a further telegram be sent from this meeting advising that growers confirm this telegram and insist that 420,000 cases U.K. space must be provided.

Export Quota.

It was agreed to put on the agenda for the May or June meeting the question of consideration of the method and basis of arriving at the quota figures. Also for the same meetings a discussion re the Egyptian, Palestine, etc., markets with a view to seeing if something could be done to obtain freight space for these markets.

Finance and Report.

The Secretary submitted the financial statement and accounts for payment, and reported on general matters occuring during the month.

Mr. J. B. Randell moved "That the statement be adopted, and accounts as presented be paid." Sec. Mr. R. Cramond and carried.

Society Report.

A report from the Society was presented, and received.

MEMBERS!

PLACE YOURSELF IN THE SAFE HANDS OF THE

F. & M.G. Society Ltd.

We are accredited agents for

GENERAL

ACCIDENT FIRE AND LIFE ASSURANCE CORPORATION LTD.

Assets Exceed £18,000,000.

All Types of Insurance.

A. STUART,
Secty., F. & M.G. S. Ltd.

SORRY YOU'VE BEEN TROUBLED.

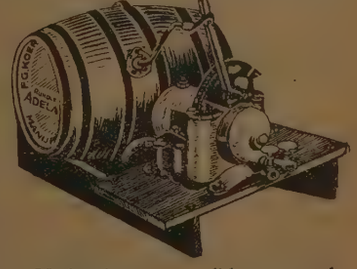
A man bought a parrot and, in an attempt to make it talk, he repeated for several minutes the words "Hello, hello." When he paused for breath the parrot opened one eye and answered drowsily, "Number engaged."

Troubles Forgotten

when you purchase an

"Everlasting" Sprayer

No more corrosion or washer troubles. Always an even high pressure.



Made in one solid gunmetal casting and supplied with 40 or 60 gal. cask or copper tank.

FRED G. KOERNER & CO. LTD.
275 Rundle Street, Adelaide

FRUIT GRADERS
WASHING MACHINES, Etc.

We make all sizes and styles of Fruit Sizing Machines from the smallest at a very low price suitable for the stone fruitgrower with only a few acres, to the largest and most complete packing house plants ever produced. Machines with instantly operated independent controls to all roller sections. Highest class workmanship and reasonable prices.

WASHING MACHINES FOR APPLES AND CITRUS.

Write for Prices and Particulars.

W. BROWN & SONS,

Phone: UX 7145. 15 CHURCH STREET, LIDCOMBE, N.S.W.

"G.B." Dusts

EFFECTIVE GB DUSTS

"G.B." Sprays

A.P. 50. NICODUST. AZURINE.

MONOHYDRATED COPPER SULPHATE for Celery, Tomato and Potato Blight.

BORDEAUX POWDER for Spraying. Save the bother of mixing Bordeaux Mixture.

COPPER CARBONATE for Dusting and Pickling Seeds and Wheat.

F. A. BLAIR - Thebarton, South Australia

Write us for particulars and pamphlets.

Our Prices are Definitely the Lowest

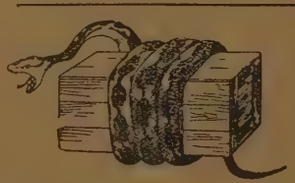
Being Direct Importers of Hardware, Garden Tools, Implements, Piping and Fittings, enables us to offer lines at the Very Lowest Prices.

Manures, Fodder, Bickford's Arsenate of Lead, and other Spray Materials. Garden Seeds of best quality in stock

Sole Agents for—
BUZACOTT'S SPRAYING OUTFITS AND CYANOGAS FUMIGANT.

THE GARDENERS' SUPPLY STORES
(CO-OP. SCTY. LTD.)
New Market, Grenfell Street, ADELAIDE
Phone: C 4943. G.P.O., Box 827 G.

The All-Australian Wire Tying Machine



The PYTHON JUNIOR

Simplifies Your Packing

By Using Wire from the One Coil for All Size Packages. Cut Lengths may also be used

The Python Junior will tie more cases per thousand feet of wire than any other machine.

Top lever action, uniform tension, speedy and easy to operate with an offcut of 2¾ inches.

PYTHON has all the essentials for a perfect pack.

EMBODYING
EFFICIENCY — SPEED — ECONOMY

Further particulars on application to:

Python Wire Strapping Pty. Ltd.
93 HOWARD STREET, NORTH MELBOURNE.
Phone: F 2708.
42-44 MEAGHER ST., CHIPPENDALE, SYDNEY
Phone: MA 4392.

South Australian Agents:
JACKSON & SPRING LTD.
23 HYDE STREET, ADELAIDE
Queensland Agents:
JACKSON & SPRING LTD.
495 ADELAIDE STREET, BRISBANE

Fruit Crop Prospects in South Australia

Compiled on December 20, 1937, by Mr. A. G. Strickland, M.Ag.Sc., Chief Horticulturist, Department of Agriculture.

FRUIT TREES AND VINES have experienced a favorable season in most districts, Winter rainfall being well distributed except in one or two areas. The season has been marked by comparative freedom from Spring frosts, which in previous years have extensively damaged fruit and vine crops. Recent December rainfall has caused some loss of soft fruits and encouraged various fungal troubles of fruit trees and vines, but generally speaking, has been beneficial rather than harmful.

Apples.

Except in the case of a minority of orchards which are in their "off" year as a result of Spring frosts in 1933. Apple trees throughout the State bloomed heavily. Although patchy in some districts and in certain varieties, fruit setting was generally heavy, and early in the season a large crop for the State was indicated. Rain experienced early in December has not led to unduly extensive development of Black Spot, probably due to the greater attention given in recent years to "green tip" and subsequent sprays. No hail damage of any consequence has been reported, and a good, clean crop of fruit is filling out well.

Jonathan crops are heavy, the **Cleopatra** crop is medium to heavy, and **Rome Beauty** is patchy in most districts.

Given favorable weather between now and maturation a record crop of clean Apples should be harvested, and on present indications, the crop is estimated at approximately 1,250,000 bushels.

Pears.

Pears bloomed well, but in most districts setting was patchy and a medium crop only is expected.

In Hills and Southern districts, **Williams** and **Packhams** should carry fair to good crops; light to medium crops are indicated at Clare and Wirrabara, whilst at Angaston, the crop appears to be 25 per cent. greater than in 1936-37.

In irrigated areas on the Upper Murray, the chief variety is Williams, and crops are reported to be 25 per cent. below average.

Peaches and Nectarines.

Fair to good average crops of Peaches and Nectarines are in sight in all districts growing these fruits. Clingstone varieties are showing good crops at Mypolonga; on the Adelaide Plains the crop is reported to be below average.

Cherries.

This crop is grown commercially only in a few selected portions of the Mount Lofty Ranges. Early and mid-season varieties produced good yields generally. Late varieties originally showed only light to good crops, and since the monsoonal rains experienced early in December, extensive losses have occurred through splitting and Brown Rot attack.

Berry Fruits.

In Hills districts where berry fruits are grown, Gooseberries are giving normal returns; crops of Raspberries and Loganberries are good, but Strawberries have given only light to fair returns.

Almonds.

Throughout the State, Almonds bloomed well, and have set fair to good crops. On the Adelaide Plains, it is reported that crops will be slightly below average.

Citrus.

Citrus trees flowered heavily in most districts, and particularly in Upper Murray districts a heavy crop is expected.

Average crops are showing in the Torrens Valley, and at Mypolonga, but in Upper Murray areas, crops are heavy, and expected to exceed those of 1937. On present indications, the State crop of Navals will be larger than for some years. Seedling varieties of Oranges, Mandarins, and Lemons promise normal returns.

Grapes.

In all districts vines have made excellent growth, and promise heavy crops. In only a few isolated instances did any loss occur as a result of frost. Recent monsoonal rains have resulted in some extension of the fungus diseases, Black Spot and Oidium, but damage so far has not been great. In certain of the moister regions, some loss has been occasioned by Botrytis or Grey Mould.

Sultanas are showing light to fair crops at Mypolonga, but in Upper Murray districts should exceed normal yields by at least 10 per cent.

Currants.

Heavy crops are in sight in irrigation areas, in the Barossa and at McLaren Vale, and State yields should be 10 per cent. to 20 per cent. higher than normal.

Wine Grapes.

In all districts, returns will be higher than average, and in the Barossa an increase of 25 per cent. over normal crops of all varieties is expected.

In irrigation areas Gordos have set a number of straggly bunches, but crops of this Grape should be well up to average.

S. AUST. GOVT. PRODUCE DEPT.

The report of the South Australian Government Produce Department for the year ended June 30, 1937, is to hand. The report deals with the export of meat, butter, fruit, wine, eggs, etc.

On the subject of fruit it is stated that the total Apple crop of 750,000 was under-estimated, else growers would have sold more for export and so relieved the local market. Local prices were low last season. It was becoming more evident every year that Australia must consume larger quantities of Apples, hence the inauguration of the publicity campaign by the Australian Apple and Pear Council, and subsidised by the Commonwealth and State Governments.

The Trade Commissioner, Mr. C. F. G. McCann, has contributed some interesting comments. He states that all export Apples were packed in soft-wood, wired, standard boxes: variations in weight from 46 to 52 lbs. a gross were noted. The heaviest packs exerted too much strain on the boxes. On the whole, the fruit landed in good condition, the main defect being case marking and contact bruising.

The State exported 268,228 cases of Apples and 51,821 cases of Pears last season. Of this quantity the Export Produce Department sold forward 55,828 cases of Apples, the average price f.o.b. Pt. Adelaide, Australian currency being 6/4, plus 1,782 cases on consignment; Pears (sold forward), 16,659 cases, price f.o.b. Pt. Adelaide, Australian currency, 7/3, plus 1,225 cases Pears on consignment.

MID-MURRAY NOTES

Unseasonal Rains and Development of Fungus Troubles :: Value of Long-range Weather Forecasts :: Codling Moth Control, Clean up of Quinces Needed :: Vine Cultural Practices Compared :: Record Crop of Apricots and Value of Autumn Watering :: Sulphur Applications to Soil to Improve Mechanical Condition and Check Fungus Disease.

(By Our Correspondent)

Renmark, Jan. 30, 1938.

FOR THE PAST MONTH we have had a succession of monsoonal disturbances, each one bringing with it extremely sultry conditions, and rain in varying quantities from a half to an inch, These conditions have been favorable to the development of oidium and black spot, each fungoid disease of which has taken its toll of fruit. Under ordinary circumstances we have an average rainfall of about ten inches per annum, but last year's total exceeded our quota, and a good deal of this fell at a time when the fruitgrower under irrigation conditions has no use for it. October and November rains may help the farmer in our semi-arid regions, but the fruitgrower knows that a good farmers' year is a bad fruitgrowers' year, for these rains bring the spores of oidium and black spot to life.

Many attempts have been made from time to time by persons who claim a knowledge of meteorology, to supply a long-range

forecast of weather

conditions, rainstorms, etc. The various weather prophets have had a certain amount of popularity when the predictions were correct, only to be cast aside and forgotten when prophesies were unfulfilled.

The remarkable prophesies of Mr. Inigo Jones, F.R.A.S., F.R.Met.Soc., of the Crohamhurst Observatory, Queensland, for the weather conditions of 1937 have been so accurate as to be of invaluable assistance to the fruitgrower who needed them. These forecasts warned him of monsoonal disturbances for the months when they are dreaded by the men in our areas, and **enabled him to take precautionary spraying measures** before the actual rain fell, a precaution which makes control measures less difficult. Mr. Jones combines the study of meteorology with astronomy, and his work is based on more sound lines than those who have preceded him in attempting a long-range weather forecast.

Pears.

The only kind of Pear grown in commercial quantities in the Renmark district is the Duchess (or Williams or Bartlett according to the state in which you reside), and picking for the fresh market for the eastern States commenced before Christmas, but as this market is confined chiefly to a few growers who have had long established connections, this market absorbed only a limited quantity. The Adelaide canneries are buying freely and a large quantity will be disposed of in this quarter, and the remainder dried. The Pears are entirely free from black spot (in fact, this disease is almost unknown in these parts), while the freedom from codling grub infection depends on the measure of protective spray used during the season.

Observations covering the past three seasons have established the fact that moth flights vary in different parts of the settlement.

Lure pots were not put out until the first calyx sprayings had been given, which varied from October 6 to October 12. But indications proved that a flight occurred before the pots were in operation, which was not identified. A second flight was in progress on December 4 at the High School, but did not occur until October 10 at Mr. H. D. Howie's orchard, and a few days later at Mr. H. Ruedeger's.

In the rush of seasonal work, observation pots were allowed to dry up and only one set of molasses pots was kept in constant operation, and judging from the tiny grubs seen in various parts indicate a further brood which came to life and was not accounted for by moth catches.

The Pear crop is a medium one, and the size is now ranging to 3 in. Before Christmas sizes of 2¼ to 2½ were noted on heavily pruned trees.

When the Duchess Pears have all been picked, the later broods of grubs find it hard to sustain life on the few later varieties grown in this locality, but reconcile themselves by attacks on the next best thing—Quinces.

Raids by codling grubs on this fruit has led to the necessity of bringing it under the same stringent spraying regulations imposed on growers of Apples and Pears. Hitherto the Quince has not been considered a very great nuisance in this regard, but as there are many neglected Quince trees in the settlement, a "clean up" of this fruit is bound to have an appreciable effect on the number of overwintering grubs.

Currant Growers in these parts have had a trying time for the past three out of four years, by experiencing the most dreaded January rain, a rain which fell on January 15 is estimated to have caused damage varying from 5 to 25 per cent. When this fruit is in the process of early sugar formation, it is particularly susceptible to the influence of rain, and much splitting of berries takes place at this stage, while an equal amount of rain falling at a later date when the fruit has developed more sugar, would do less harm.

Another contributing factor influencing the splitting of berries, both in **Currants and Sultanas**, is the presence of oidium, which has been particularly bad this year. It is seldom we have a year when both these fungoid diseases develop to any extent. Weather conditions are usually favorable to one or the other, but this year proved an exception, and every variety of unseasonal weather conditions has been experienced.

Drying Grapes.

One problem which faces the Sultana grower is to separate his "spotted" fruit from the sound and unblemished fruit, and in consequence of this, harvesting costs will be higher than usual.

On present indications it would appear sound policy to **pick the good fruit first**, and attempt to get a good grade, and leave the "spotted" fruit to be treated with a hot dip so as to deliberately darken the berries, thus making the spots less noticeable.

A good deal has been said, early in the season, about the evils growers are committing by

topping and tipping

their vines during the growing period —a practice which has been almost universally adopted in the Murray Irrigation areas — where vegetative growth has been rank.

Those who have followed this advice for non-tipping, have become wiser but sadder men. Vines have made exceptional growth this season and in attempting to keep the foliage wrapped on the upper wire, conditions have been created for the growth of that insidious fungus oidium, and when growers were eventually forced to open out their vines for the purpose of allowing light and air to have access to the fruit, a good deal of heavy hacking had to be resorted to.

A grower who always cuts his Currant vines back hard was once told that if he kept on doing it he would weaken and eventually kill his vines. His only remarks were as follows: "I've done this for 20 years and can still harvest a 2½ to 3 ton crop to the acre. If I don't cut back hard I lose the crop with oidium and I've got to chose between a big crop of low-grade fruit and no crop at all, and as I don't grow vines for fun, I cut them back to save my crop."

It may be theoretically sound to leave a vine untipped and untopped, but when this policy tends to loss from fungoid diseases, it is not practically sound.

Record Crop of Apricots.

A record crop of Apricots has just been picked, sulphured and dried; and although many anxious moments were experienced when drying fruit had to be protected from the rain, harvesting is now almost completed, and everybody satisfied with the crop. In moving around among growers, the various methods of soil treatment and manuring policies can be compared and results noted.

Each grower claims that his particular method is responsible for his increased crop, but knowing some orchards to be consistent croppers, and others "on and off" croppers, the writer has made observations of his own on the matter.

It is my belief that last year's January rain, which did so much damage to various vine fruits, benefited the Apricot grower to the extent of enabling the fruiting buds to develop strongly. Furthermore, that the January thunderstorms of 1937 increased the nitrate content of the soil, and giving the trees that "kick" needed before going to sleep for the Winter.

Some of our best Apricot growers have long adopted the practice of irrigating as soon as possible after the crop is picked, and at the same time giving the trees a dressing of sulphate of ammonia. This practice has led to more consistent cropping, and has a sound biological backing.

Applications of sulphur to the soil is a matter receiving a good deal of attention in recent years. In some cases it is done to improve the mechanical condition of the soil, in which case it is done at the rate of ten cwt. per acre, and others it is done for the purpose of acting as a toxic agent for oidium. Not much evidence has been forthcoming regarding the latter practice, and its effect because we are told that to combat oidium the sulphur, to be effective, must be in direct contact with the leaves. The writer has always looked upon the application of sulphur to the soil with a certain amount of guarded scepticism when done for the purpose of acting as a fungicide, but the evidence of many years' work by Mr. G. A. Martin induces one to the belief that there is a great deal more in it than was previously believed. Mr. Martin applies over two cwt. per acre of sulphur under the vines, and has been able to keep his vines free from oidium with this aid and with the addition of two sulphur dustings on the leaves.

On a hot day the fumes arising from the sulphur is decidedly unpleasant to the man on the cultivator and must surely have a deterrent effect on the germinating spores of oidium. Other growers have reported good results from this practice, and as this year will rank as one of the worst oidium years, control by this means was comparatively easy. Oidium seems to have certain favorite spots, where moisture is present, and air circulation difficult. In such spots it has been necessary to sulphur as many as six times to obtain freedom.—Nemo.

Colloidal Sulphur

Established by field trial and scientific tests as the major recent advance in the control of Fungous Diseases of Vines, Orchard Trees and Vegetables

HOWARD'S COLLOIDAL SULPHUR

is better and cheaper than competitive brands. Pamphlets, prices and details of free test offer from the manufacturers:—

R. G. Howard & Co., 27 GRENFELL ST. ADELAIDE

WOOD WOOL

Finest Grade for Export Fruit.

STRAWBERRY BOXES.

and Fruit Containers.

Prices and Particulars on Application to

AUSTRALIAN BERRY BASKETS CO.

175 Kent Street, Richmond, Vic.

Tel. J1263.

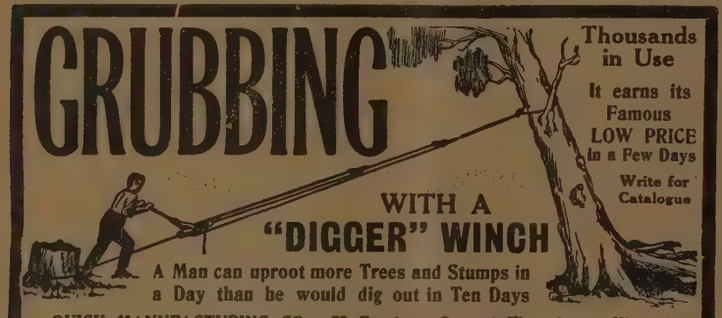
What Humus is . .

Chemical Constituents

"What is humus?" was asked and answered recently in the "Shepparton News." The explanation is simple. When the putrefaction of dead plants is completed there remains a soft black mass known as vegetable mould or humus. According to Johnson, one hundred parts of the humus of wheat straw have of extractive, or apotheme, rather more than 26 parts, and the residue is lime, peroxide of iron, phosphate of lime, and carbonaceous matter. This apotheme contains carbon 46.6, hydrogen 20, and oxygen 33.4. At one time it was believed that this apotheme is the immediate fertilising component of organic manure, being soluble in some circumstances, and entering at once into the roots of the plants, dissolved by the moisture of the soil. Modern chemistry research opposes this view, and it is now regarded as tolerably certain that a chief nutritive portion of vegetable manures is their carbon converted into carbonic acid, absorbed either in solution with the earth's moisture, or in gaseous forms by the roots.

Taking Edward Pescott's definition in Gardening in Australia, "humus" is the term applied to all forms of decayed animal and vegetable matter in the soil. It is frequently, but not always, the cause of the dark colors of soils. This characteristic is usually desirable for the reason that dark soils absorb solar heat freely, and therefore plays an important part in plant growth and development. Humus may be added to soils by the addition of animal manures, weeds, leaf mould, garden litter, and plant and animal refuse of any kind. For this reason the saving of weed and plant refuse, and its storage in compost pits or heaps until it is thoroughly rotted is recommended. The stouter parts of plants, such as prunings, broken boughs, old roots, and also large bones, should be burned before they are added to the soil. Where circumstances permit humus can be restored to soils by sowing Beans and Peas in Autumn and turning them under in Spring as green crops.

GRUBBING WITH A "DIGGER" WINCH



Thousands in Use

It earns its Famous LOW PRICE in a Few Days

Write for Catalogue

A Man can uproot more Trees and Stumps in a Day than he would dig out in Ten Days

QUICK MANUFACTURING CO., 75 Penders Street, Thornbury, Victoria

Too Many Plums

Much Wastage This Season Because of Lack of Sales to Factories.

MUCH CONCERN has been expressed by growers in Australia generally regarding the heavily reduced quantities of Plums accepted by factories.

At a recent meeting of Victorian growers the view was expressed that the price fixed by the Fruit Industry Concession Committee, £7 a ton was preventing sales this season. As against this, however, it was stated that factories had more than sufficient stores of pulp on hand for the present season's requirements.

Mr. W. Young, a member of the Fruit Industry Sugar Concession Committee, reported at a meeting of the V.F.M.A. that the supply of Plums appeared to be greatly in excess of the demand.

Secondly, the fruit cost in Plum jam at the fixed price, had practically no bearing on the case, at £1 per ton only means 1½d. per dozen on the cost of the jam, hence a reduction of £4 per ton would be necessary before Plum jam could be reduced ½d. per tin. He had been assured that even if Plums were £3 per ton the manufacturers would not have purchased more this season.

On the same subject, the chairman of the Fruit Industry Sugar Concession Committee (Mr. A. R. Townsend) states as follows—

"There has been an obvious overproduction of Plums for several seasons, and I suppose this kind of thing will happen intermittently with most fruits while ever Australia remains divided into six States with authorities in each of them independently pursuing policies of local expansion irrespective of the position in Australia as a whole."

Empire Producers' Conference

To be Held at Sydney in March.

An Empire Producers' Conference will be held at Sydney for two weeks —March 26 to April 7.

Delegates will attend from responsible organisations in England, Scotland, Rhodesia, Canada, New Zealand, Australia.

The Conference will form industry Committees and consider:—(1) Disposal of export surpluses; (2) Development of intra-Dominion trade; (3) Establishment of Liaison and Consultative Committee; (4) Formation of Empire Producers' Organisation.

It is evident from correspondence that the purpose and scope of the Conference are considered very seriously by the organisations concerned. Details will be supplied concerning the economic position of primary industries in Great Britain and the Dominions.

Among the matters listed are those dealing with Marketing Boards and their extension. Questions are asked as to the soundness of the principle of compulsory marketing: the attitude of consumers; the Privy Council decision re Australian Constitution, etc.

Subjects for the agenda are invited. The Secretary is Mr. G. A. Try, Winchcombe House, Bridge-street, Sydney.

TRUE TO ITS NAME.

"By the way, darling, what is this dessert we are having for dinner tonight?" asked hubby.

"It is a sponge cake."

"And very nice, too."

"Yes, I sponged the eggs from Mrs. Jones and the flour and milk from our new neighbour."

"HARVEY" FRUIT GRADERS and Processing Equipment

1938 SIGNPOSTS OF PROGRESS

THE NEW HARVEY FRUIT GRADER with all the latest improvements which go to build up a more accurate pack, absolutely eliminates bruising in the process of grading and packing.
It gives correct lidding height for your pack, thus eliminating bruising which usually takes place at the ends of the case when lidding.
The Harvey new season's Grader has several novel features—
It is the most perfect fruit grader ever offered to the packer.
Decided improvements have been made over the old mode of grading.
The Grading element can be varied to a fraction to give the correct size and count. If a pack is too high in the case or too low, each element can be altered fractionally without interfering with your count.
Thousands of cases of tomatoes being sold at the Melbourne Market to-day are graded with Harvey Graders.
The Grader is almost human inasmuch as it can be used to grade various types and shapes of fruit, as different varieties require different treatment. The packer has full control of that treatment in such a way that the rollers are left free to spin lightly on ball bearings for flat and round varieties, or driven for conical ribbed fruits. The rollers can be driven at various speeds in conjunction with the variable belt speed. This combination of free or driven rollers, gives that more or less human touch which has been lacking in the past.

Exclusive Harvey Grader Patents

1—THE SETTING OF SIZING ELEMENTS AT OBLIQUE ANGLE ACROSS GRADING BELT.
2—INDEPENDENT ADJUSTABLE ROLLERS.
3—DEFLECTORS FOR DEFLECTING FRUIT PAST ONE BIN INTO THE NEXT.
4—ELEVATOR DELIVERING FRUIT TO LOWER SIDE OF GRADING BELT.
5—EXTERNAL FRICTION DRIVE OF GRADING ELEMENTS; VARIABLE SPEED AUXILIARY DRIVE.

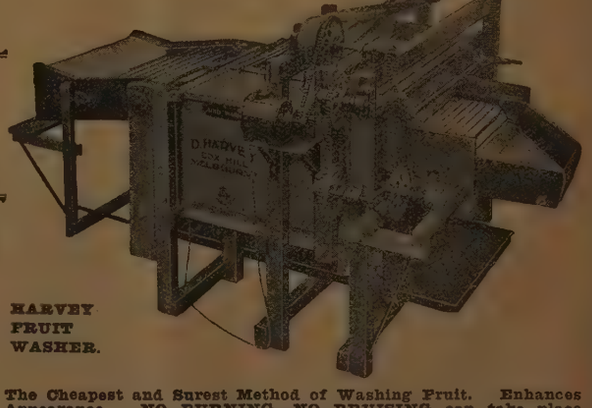
— *Packing House Equipment* —

Sorting Tables
Special Pear and Lemon Graders
Cannery Graders
Tomato Graders
Passion Fruit Graders
Citrus Graders
Dehydrators
Citrus Washing and Sterilizing Plants
Pear & Apple Washing Machines
Apple Wiping Machines
Gravity Conveyors
Cool Store Trolleys and Trucks
Lidding Presses

HARVEY *Apple and Pear Washers — Built in capacities from 250 to 6,000 case per 8 hour day.*

★

CALL ◆ WRITE ◆ PHONE DIRECT



HARVEY FRUIT WASHER.

The Cheapest and Surest Method of Washing Fruit. Enhances Appearance. NO BURNING—NO BRUISING can take place within the Machine itself, which THOROUGHLY WASHES the Fruit, removing all TRACES OF ARSENATE LEAD POISON and Hydrochloric Acid. As the season is fast approaching, please Order Early to Ensure Delivery.

Daniel Harvey Limited

ORCHARD IMPLEMENT SPECIALISTS

BOX HILL — 'Phone: WX1025 — VICTORIA

INTERSTATE REPRESENTATIVES:—

N.S.W.—BUZACOTTS PTY. LTD. 7-11 Market St., Sydney.
S.A.—SILBERT, SHARPE & BISHOP, Rundle St. East, Adelaide.
W.A.—PATERSON & CO. LTD., St. Georges Terrace, Perth.
SOUTHERN TASMANIA — D. HARVEY LTD., Hobart.
QUEENSLAND — BUZACOTT (QUEENSLAND) LTD., 443 Adelaide St., Brisbane.
S.A.—COLE & WOODHAM, Box 12, Renmark.
NORTHERN TASMANIA — CLIMO'S & MARSHALL, 119 Cimitiere St., Launceston.

Canned Fruits in England

Imperial Fruit Show Awards

Prizes Won by Goulburn Valley Canneries, Leeton, and Jones & Co.

REMARKABLE SUCCESS was achieved by Victorian exhibitors who sent entries of canned fruits, fruit beverages, and honey to the recent fruit show and canners' exhibition held at Birmingham, England. **The number of entries from Australia was a record.** The large number of prizes scored by fruit from the Goulburn Valley is particularly gratifying, and is a very satisfactory indication of the competitive quality of Australian canned fruits.

Advice received by the Department of Commerce shows that the Shepparton Preserving Co. Ltd. and Ardmona Fruit Products scored awards in almost every section for which they forwarded entries. Australian prize winners were as follows:—

One Market Case of Canned Peaches (halves), choice grade—Leeton Co-op. Cannery Ltd., 1; Shepparton Fruit Co. Ltd., 2 and 3. One Market Case of Peaches (halves), standard grade — Shepparton, 1, 2, and 3. One Market Case of Peaches (slices), choice grade —Ardmona Fruit Products, 1; Shepparton, 2. One Market Case Peaches (slices), standard grade—Shepparton, 1 and 2; H. Jones & Co. and Leeton Co-operative, equal 3.

One Market Case Apricots, choice grade — Shepparton, 1 and 2; Ardmona, 3. One Market Case Apricots, standard grade—Shepparton, 1 and 2; Ardmona, 3.

One Market Case of Pears, choice grade—Ardmona, 1; Shepparton, 2. One Market Case Pears, standard grade—Kyabram Co-op. Ltd., 1; Shepparton, 2; Shepparton and H. Jones & Co., equal 3. One Market Case Peaches (halves), standard grade — Ardmona, 1; Leeton Co-op. and Shepparton Co., equal 2; Shepparton, 3. One Market Case Peaches (slices), standard grade — Shepparton, 1; H. Jones & Co., 2; Leeton Co-op. Co., 3. One Market Case Apricots, standard grade—H. Jones & Co. and Ardmona Co-op., equal 1; Shepparton, 2; Kyabram Co-op. Ltd., 3. One Market Case Pears, standard grade—Kyabram Co-op. Ltd., 1; Shepparton, 2 and 3. One Market Case Imperial Fruit Salad (open to overseas canners only), choice grade—H. Jones & Co., 1; Shepparton, 2.

CANNED GRAPEFRUIT.

The Leeton Cannery has decided to make commercial experiments in the British market for canned Grapefruit and juice. They had obtained samples of Florida and Californian Grapefruit in cans, which contained fruit of good texture and flavor, stated the general manager, Mr. Williams, but considered that Leeton quality closely approached that of Californian.

CANNED FRUITS FOR U.K.

1938 Season's Minimum Prices

THE undermentioned minimum prices have been prescribed by the Canned Fruits Control Board for sales of canned Apricots, Peaches and Pears for shipment to the United Kingdom as from January 24, 1938.

	Apricots.		Peaches.		Pears.	
	No. 2½'s.	No. 1's.	No. 2½'s.	No. 1's.	No. 2½'s.	No. 1's.
Choice	7/6	4/10½	7/3	4/9	7/7½	5/–
Standard	7/–	4/7½	6/9	4/6	7/1½	4/9
Seconds	6/6	—	6/3	—	6/7½	—

Prices are in English currency, on the basis of per dozen tins, c.i.f. U.K. Conference ports.

For territory other than Scotland and Northern Ireland, the prices are net for parcels of not less than 1,000 cases, which is the minimum quantity for which orders are to be accepted. To individual buyers of parcels of not less than 5,000 cases, in one lot, a discount not exceeding 5 per cent. may be given.

For Scotland and Northern Ireland, the minimum prices as quoted also apply. The terms, however, are not for parcels of not less than 100 cases, while a discount not exceeding 2½ per cent. may be given on an order of not less than 1,000 cases, placed by any individual buyer. Buyers of 5,000 cases in one lot may be paid a discount not exceeding 5 per cent.

The final date of shipment against orders is September 30, 1938.

No shipments on a consignment basis are to be made, unless in exceptional circumstances, and then only with the approval of the Board.

CANNED FRUIT EXPORTS

DETAILS OF THE EXPORTS of Canned Fruits from Australia to various destinations from January 1 to December 31, 1937, are to hand from Mr. W. J. Adams, Secretary of the Canned Fruits Control Board as follows:—

Country.	Apricots. Cases.	Peaches. Cases.	Pears. Cases.	Fruit Salad, Cases.	Pine-apples. Cases.	Total. Cases.
U.K.	91,985	636,696	701,843	760	20,097	1,451,381
N.Z.	24,232	69,302	25,461	64	1,926	120,985
Canada	8,692	67,558	6,125	3,000	14,724	100,099
East	4,058	11,148	7,540	2,448	140	25,334
Misc.	1,142	2,600	3,200	158	376	7,476
Total	130,109	787,304	744,169	6,430	37,263	1,705,275

CANNED FRUITS FOR N.Z.

1938 Prices for Peaches, Pears and Apricots.

MINIMUM PRICES at which Australian canned fruits may be sold to N.Z. in the current season have been announced by the Canned Fruits Control Board.

The prices on the basis of a dozen tins net f.o.b. Australian ports are as follow:—

	30 oz. Standards.	30 oz. Seconds.	16 oz. Standard
Apricots	8/1½	7/9	5/7½
Peaches, halves and sliced	7/10½	7/6	5/4½
Pears	8/3	7/10½	5/9

The final date of shipment of goods from Australia has been fixed at October 31.

The prices for 30 ounce tins of Apricots, Peaches, and Pears are 6d. a dozen tins higher than the opening prices for the 1937 season, and 16-ounce tins 1½d. a dozen higher.

The higher prices are more a result of increased production costs than firmness of the market for canned fruits in N.Z.

CANNED FRUIT CLEARANCES.

1937 Consumption in Australia Heaviest Since 1929.

The consumption of canned fruits in Australia in 1937 is stated by the Canned Fruits Control Board to be the heaviest since 1929. The number of cases used during the year was 963,150.

The carry-over of canned fruits on December 31 last was one of the smallest for many years, and some canners ended the year with bare floors. The small stocks held promise to enhance prospects of sales of the present season's pack.

ARE YOU GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features, with a host of others, was THE "MONKEY" GRUBBER.

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. This latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

ENQUIRE FOR YOUR GRUBBING NEEDS ONLY

H. H. HINDS, 225 Clarence Street, Sydney.

A. G. WEBSTER & SONS, Hobart & Launceston.

A. ROBINSON, 821 Ann St., Brisbane

Leading Stores and Merchants, South and West Australia.

TREWHELLA BROS. Pty. Ltd. Trentham, Vic.

The Citrus Industry

Trade With New Zealand :: Need for Standardised Packs :: Value of Publicity. Views of Mr. A. W. Schwennesen, Manager, Victorian Central Citrus Association.

THE PROSPECTS of increased trade in citrus with New Zealand and improvements in citrus marketing in Australia were recently dealt with by Mr. A. W. Schwennesen, general manager of the Victorian Central Citrus Association.

Mr. Schwennesen points out that for the seven months ending December 21 last, 273,000 boxes or approximately 385,000 bushels of Oranges were shipped from Australia to New Zealand. This compares more than favorably with approximately 270,000 bushels (inclusive of Mandarins and Lemons) shipped in 1932, the biggest year prior to the embargo. He states that the N.Z. market has increased so greatly that it could be developed to absorb 400,000 to 500,000 bushels of Australian citrus. The quantity shipped this year is made up as follows:—S. Aust. 186,000, N.S.W. 664,000, and Victoria 23,800.

Valencias were principally sold f.o.b. Melbourne, from 14/- to 17/6 a box. In some N.Z. cities brokers were purchasing their requirements collectively.

Of the total sent from Melbourne, 19,640 boxes passed through the hands of the V.C.C.A., a much bigger percentage compared with what the V.C.C.A. handled before the embargo. Since the imposition of the embargo South Australia has been the only State which has been allowed entry during the May to October period, ostensibly because of freedom from Fruit Fly.

Mr. Schwennesen expresses the desire for all fruit for export to pass through the one channel so that trade can be controlled. He regrets the N.Z. Government's stipulation that the large size "export" box and not the busnel case must be used.

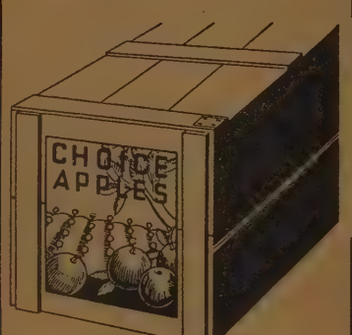
Growers are urged to use great care in packing. All fruit intended for the N.Z. market should be clipped from the tree. If Oranges have to be pulled so hard that part of the stem is torn from the tree, then the pressure of the fingers has probably been sufficient to damage the oil cells, with consequent mould development later.

The confident hope is now expressed that under the new trade arrangements following the visit of the Australian Minister for Customs, Col. T. W. White, to N.Z., there will be a free market into N.Z. for Australian citrus.

Mr. Schwennesen favors the imposition by N.Z. of a Quota on Australia without discrimination, which would result in the creation of an effective Commonwealth organisation.

On the subject of **publicity**, Mr. Schwennesen urges that all who use the Melbourne market should contribute to the funds. At present only the growers who pay levies to the V.C.C.A. are contributing. He urges the adoption of a standardised pack, and believes that the present consumption of citrus fruits in Australia could be increased 40 per cent. if the quality of the different varieties all measured up to the best produced, and could for the most part be sold under one brand.

A full report of Mr. Schwennesen's views are published in the January issue of "Citrus News." The foregoing is a summary.



GOOD LABELS
. . deserve . .
A GOOD PASTE

CHEAP LABELS
DEMAND IT

THE BEST PASTE
. . is . .
DAVIS 444
ADHESIVE

With this easy to use cold water paste the labels always stay on.

Obtainable from all Hardware, Paint and other Stores.

CITRUS CONSUMPTION IN U.K. AND U.S.A.

According to the Imperial Economic Committee, London, the per capita consumption of Oranges in the United Kingdom was 23.8 lbs. for the year 1935; of Lemons and Limes, 3.1 lbs.; and of Grapefruit, 2.7 lbs.

A comparison with the United States shows that there the consumption of Oranges was 26.95 lbs. per head of population; Lemons 3.97, and Grapefruit 6.71.

Genius is one per cent. inspiration and ninety-nine per cent. perspiration. —Thos. Edison.

SEASONAL CITRUS REMINDERS

Measures Against Damage by Scale Insects.

IF CITRUS FRUIT is to be marketed free of blemishes from scale pests, it will be necessary to adopt suitable preventive measures during the next month or two. The usual measures are fumigation or the application of oil emulsions. Which of these measures is preferable is determined by circumstances. Both treatments are effective if carefully carried out, states the N.S.W. Dept. of Agric.

Whether trees be

fumigated or sprayed,

they should be pruned to a little height from the ground to enable the gas or spray to have ready access to the lower parts. A height of from 6 to 9 inches from the ground at this period of the year is advisable. A reasonably open-centred tree greatly facilitates spraying operations.

Completion of spraying with oils before mid-March is advisable.

In treating scale pests, ample spray must be applied to ensure covering all parts of the tree. Where high trees have to be sprayed the use of a spray tower is a great aid to better coverage of the tree tops. Where fumigation is being employed the land should be well prepared to permit the edges of the sheets to lie on the ground. Cloddy ground and any dead or green grass where the sheet touches the ground is likely to result in escape of gas.

Irrigation of Trees.

In almost every locality in which the application of water to supplement the natural rainfall for fruit production is practised, problems arise which, to a great extent, seriously affect yields, quality of fruit and longevity of trees. With deciduous trees the detrimental effect is not so apparent as with citrus trees, because, no doubt, of their longer period of dormancy each year. Whilst careful watering is essential for all trees, it is particularly the ease with citrus trees, which must be given neither too little nor too much. Too little water is less harmful than an oversupply.

Differences in soil texture and cultural methods preclude positive recommendations. Each grower should know the effect of a certain amount of water on each type of soil irrigated. This information should be known before the trees reach an age of 10 to 15 years, because about such time the trees may reflect any effects of over-watering. In some soils the ill effects may still not be apparent, but they will eventually cause much loss.

CITRUS CULTURE IN N.S.W.

Recent Decline in Values :: Result of N.Z. Embargo.

CITRUS GROWERS in N.S.W. have had many adverse years of late, and the result of negotiations between the New Zealand and the Commonwealth Governments are awaited with great eagerness.

The Director of Marketing, Mr. A. A. Watson, in referring to the decline in production, said that growers had suffered as a result of adverse seasons, lower values during the depression, and the imposition of the N.Z. embargo. An analysis of figures published by the Bureau of Statistics revealed that the gross value of citrus at place of production reached its peak in 1929-1930, namely, £1,176,400. In the following year, although the total yield had increased, the value had declined to £810,160, and the figure for 1935-36 was £884,660.

Citrus Exports.

In 1931-32 the total value of citrus exported was £113,384, but, owing principally to the N.Z. embargo in December, 1932, the value for 1932-33 dropped to £89,735, and £57,823 in 1933-34. Efforts to develop markets in Canada and Great Britain met with some success, and in the following year exports rose again to £88,167.

Trade With N.Z.

Continuing, Mr. Watson stated that during the two seasons before the prohibition (1930-31 and 1931-32) 165,218 and 240,158 bushels of citrus, including Oranges, Lemons and Mandarins, were shipped to N.Z. from N.S.W. The concession granted by the N.Z. Government operated between November 8, 1937, and April 30, 1938, and during November 32,579 cases of citrus were shipped from N.S.W. to N.Z. ports, while during December the reduced quantity of 21,163 cases of Oranges and 50 cases of Grapefruit went forward.

The later consignments comprised Valencias. Early shipments realised: 1st grade, 16/-; 2nd grade, 14/6; and 13/- plain grade per export case, f.o.b. Sydney. Prices were increased by approximately 1/6 per case for December shipments.

N.S.W. Crop Prospects.

It is reported that shedding of the new main crop is still occuring in a number of districts, but it is yet impossible to forecast anticipated yields for the 1938 season.

CITRUS CROP PROSPECTS IN N.S.W.

The latest seasonal report from the N.S.W. Department of Agriculture states, that Navel and Valencia Oranges, also Mandarins, promise well.

Around **Maitland**, Common Orange crops moderate to good. In the **Windsor** area, despite heavy sheddings, satisfactory crops anticipated. All main and intermediate Valencias and Commons harvested. Lemons—Intermediate crop promising well. Despite shedding of Mandarins, good crop anticipated.

Around **Wiseman's Ferry**, young fruit, particularly Navels and Mandarins, shed heavily, but crops are growing well.

Murrumbidgee Irrigation Areas.

At **Griffith**, hot scorching winds recently reduced crop prospects. Valencias medium to good; Sevilles (small acreage) moderate crop showing; Lemon crop satisfactory; Mandarins light. At **Leeton** fruit crops of Navels and Valencias are good. Common Oranges medium.

Gerrard Sales and Service

The Gerrard Fruit Packing Charts for Apples, Pears, Citrus are available, post free, on application.

Write: GERRARD WIRE TYING MACHINES CO. PTY. LTD
18-24 Ireland St., West Melbourne, C.3
SYDNEY — BRISBANE — ADELAIDE — PERTH
TOWNSVILLE — HOBART

GERRARD
The Tie That Binds

Motor Cars, Trucks, Tractors

PRACTICAL HINTS FOR THE MOTORIST

Keep Your Car in Good Trim

NO CAR will run perfectly for an indefinite period if it does not get careful attention. For instance, it is necessary to tune the ignition system and carburetter occasionally. This will result in more power, good acceleration and quick starting as well as greater fuel economy.

The brakes must be sound so as to be ready for the unexpected. Greater ease in driving will result if the steering is examined and adjusted.

Don't neglect the battery, have it charged, if necessary, and see that the plates are well-covered with distilled water. When examining the battery, be sure to use a torch or other safe light if light is needed. When a naked flame is brought near the holes there is liable to be an explosion, as hydrogen may be present. Special care of this must be taken when the battery is being charged, as hydrogen is then given off in large quantities.

The tyres are a very important factor. Not only the efficiency, but also the safety of a car is affected by bad tyres. If a blow-out occurred even at a moderate speed, the lives of those in the car and near it may be seriously menaced. If the tyres are badly worn or split, always get them repaired or replaced.

Overheating may be caused by too weak or too rich a mixture, by the ignition being retarded too much, by a blockage of the water circulation passages or by a defective fan. Be sure, therefore, that the choke and ignition are correctly regulated and that the fan is working properly. It is advisable also to drain the radiator occasionally and clean it well, thus preventing blockages in the water circulation.

It is important that the windscreen should be kept clean at all times. Comfortable driving and perfect safety are impossible if the vision is impeded by a dirty windscreen. This is particularly true when driving into the sun or at night when the light from street lamps and headlights of other cars strikes the dust on the windscreen, causing a confusing haze through which it is often difficult to

Lubrication.

Proper lubrication is of vital importance. Drain and refill the sump with the correct grade of Summer oil, particularly if it is 1,000 miles since this was attended to before. Attention should be given also to the lubrication of the gear box, differential, wheel bearings and the back axle.

Saving Petrol.

Is your car "eating the juice" too rapidly? There are many causes of this, some requiring a good deal of expert attention; but a very simple and common cause is the under-inflation of the tyres, which causes a drag. It will pay, therefore, to have your tyres checked regularly and to adjust the pressure to suit the weight of the car. Remember, the rear tyres need a couple more pounds than the front.

Another frequent cause of over-consumption of petrol is bad spark-plugs. It is false economy to make them last as long as they will, because old plugs invariably become clogged and therefore spark badly. Although the plugs appear to be functioning perfectly they may be wasting petrol at a great rate. In any case it is advisable to clean them occasionally and adjust the gaps to the correct setting.

In heavy traffic conditions, about 20 per cent. of the fuel consumed passes through the slow-running jet. It is therefore advisable that this should be accurately adjusted in order to consume as little fuel as possible. Attention to this point may save up to 3 m.p.g.

Coasting Saves Fuel.

Although there have been varied opinions expressed on the subject, tests reveal that the amount of petrol saved while coasting, particularly when a long downhill stretch is negotiated, is considerable. Coasting, however, should be done wisely with the car well under control.

CAUSES OF HEAVY STEERING.

When a motor-car has been in use for some time there is often a tendency for the steering to become unduly stiff in operation. This may be caused by a number of factors, the most common of which is inadequate lubrication of the steering mechanism and king pins. Each time the chassis is greased care should be taken to ensure that the grease penetrates to these units. Lack of lubrication may cause excessive wear, and the steering may become permanently heavy and erratic. It is also a cause of backlash and wheel wobble.

Other factors which cause stiffness and destroy the balance of the steering are faulty wheel alignment, a slight sagging of the front axle, which will take away the camber of the wheels, and under-inflation of the tyres.

VICTORIA'S MOTOR REGISTRATIONS.

Of the 215,090 motor registrations in Victoria in 1937, 138,922 were private, 32,545 commercial, 2,070 hire cars, and 41,553 were run by primary producers.

BEWARE OF FUMES.

Work in Garage.

Always keep the garage doors open when making adjustments with the engine running.

The atmosphere is composed of nitrogen and oxygen. Petrol is a carbo-hydrate, consisting mainly of carbon and hydrogen. The process of combustion in the cylinder causes a rearrangement of these four constituents.

The nitrogen in the air is freed, and passes harmlessly through the exhaust system and is discharged with the carbon to form carbon dioxide, and this too passes through the exhaust system and is discharged in comparatively harmless form; while the remainder of the oxygen and all of the hydrogen combine to form water. Strictly speaking, this is formed as steam and not water, but the steam condenses in its passage through the exhaust and silencer and is seen dripping as water.

When, however, combustion is incomplete, the residual gases contain a considerable volume of carbon monoxide instead of carbon dioxide, and the former is a deadly poison—odorless, tasteless, and invisible. It is heavier than air and sinks to the floor.

MOTOR BRIEFS.

When coasting avoid "dropping in" the clutch. It should be engaged again gently, the engine at the same time being speeded up to correspond with the road speed. The transmission strain involved in suddenly speeding up the engine if these precautions are neglected is severe, and is a common cause of damage to the crown wheel and pinion.

:: :: ::

Regular lubrication of the water pump shaft is an important detail in car maintenance. Use a special pump grease, which is proof against water and high temperatures, unless heavy oil or some other lubricant is specifically recommended. Lubrication of the fan bearing also is important, as wear at this point produces noise.

:: :: ::

Now that China is so much in the news, it is of interest to mention that that country, although not so highly motorised as Australia, has far more Diesel-engined automobiles in service than has the Commonwealth.

:: :: ::

A learned scientist has discovered that a fly beats its wings 330 times a second. Which sounds incredible. Even more startling is the fact that the pistons of the normal four-cylinder touring car do 400 strokes a second, So say the automative engineers, who think nothing of it.

WHAT DO I KNOW ABOUT TRUCKS?

ONLY THIS. I've been driving them all my life. All sorts. All sizes. Under all conditions. And believe me if you want a truck that stands up to heavy hard-going stuff, Chevrolet's the answer. It's got guts. Tons of it. It can take all the punishment in the world—it can "take it and like it."

HERE'S AN INVITATION! Take one of these Chevrolets out on the job—on YOUR job. Put it through its paces under your usual working conditions. Find out, first hand, if it suits your needs, satisfies you. Unless you're the odd one in a thousand, you'll find it ideal. There is a big range of Chevrolet Utilities and Trucks—Chassis prices from £233 to £320 (plus Tax). Easy terms arranged.

Chevrolet TRUCKS

PRESTON MOTORS PTY. LTD.

114 Franklin St., Melbourne, C.1., F 3621.

New Zealand News & Notes

Slump in Market for Oranges :: Factors Affecting the Proposed Trade Treaty :: Apple Exports 1,415,000 to all Markets :: Otago Now to Come under Control :: Local News and Notes.

(By Our Correspondent.)

Oranges.

The lifting of the embargo against N.S.W. and Victorian fruit from the beginning of November resulted in a demand for fruit far in excess of what the irrigation areas could supply on short notice. In effect, it became a sellers' market, and in many instances N.Z. buyers placed open orders with packing groups for any quantity of fruit that could be got ready. The demand in N.Z. markets during November remained fairly firm, probably because the retailer was entirely out of stock of Oranges when the first N.S.W. fruit arrived. As this position was gradually overcome, the demand steadied down, but it was still quite firm until the middle of December, when the fruit merchants realised that the anticipated demand by the public was non-existent, and that surplus stocks held in cool store were going to be difficult to quit.

The nett result round about December 15 until Christmas has been that some of the large holders have thrown their fruit on to the market under auction, and the prices realised have ranged from 6/- to 15/- per case. Certainly the low priced fruit was in bad order, but even first quality fruit in good condition only averaged about 12/- per case, which must show a loss of anything up to 10/- per case to the N.Z. importer who of course has purchased on a F.O.B. basis, Sydney or Melbourne. From information gathered it would appear that the stock of Valencias in N.Z. cool stores, together with the Jamaican fruit due to arrive in January, will be more than sufficient to supply the total requirements up until the end of January. Importers are naturally very worried, and it is admitted in all quarters that the market requirements have been over-estimated. The nett result must mean a fairly severe loss to all connected with the business.

At the root of the trouble is the lack of demand from the public. Prices of 16/- and 18/- F.O.B. Sydney-Melbourne do not allow the Oranges to be sold wholesale for under 22/- to 26/- per box, according to size. This means expensive Oranges to the public, and they just will not pay the money.

It is very unfortunate that the first lifting of the embargo should coincide with a short crop year in the irrigation areas, as these high prices and the present over-supply will make merchants very chary in future seasons of making extensive forward commitments.

With a good crop of stone fruit in prospect the demand for Oranges will drop off, and except for small shipments from Australia, it looks as if the Jamaican fruit will easily cater for requirements.

Trade Treaty:

No official statement has been released in New Zealand as a result of the discussion between the respective Governments. A cable came through from Canberra to the effect that the citrus embargo was to be totally lifted, except for certain N.S.W. areas affected with fruit fly. In fruit circles it is expected that the N.Z. Government will have taken some steps to protect the shipments of Oranges which arrive in N.Z. from the Cook Islands during the Winter. This fruit will continue to come forward, so if N.S.W. and Victoria are to secure any benefit from the lifting of the embargo, it must be at the expense of S. Australia. The fruit from this State has, in the past few years, secured a wonderful goodwill among the N.Z. public, and shippers from Victoria and N.S.W. can only expect to get a small share of this trade unless their prices are very much lower than those of S. Australia.

It would occasion no surprise here if the N.Z. Government have dropped the suggestion of finding a market in Sydney for N.Z. Potatoes, because in the past few years the whole of the N.Z. surplus has been shipped to S. America. This export trade has been of great value in holding local prices at a reasonable level, but the Potato grower would meet a disastrous situation if for any reason this trade were to discontinue. In all trade treaties there is a quid pro quo, and it can be expected that the secondary industries in N.Z. are going to benefit by additional protection against Australian manufactured goods. This, of course, must result in a further impetus in the cost of living, which is already very high.

Apple Export:

Preliminary figures for the 1938 season have been published, and according to a statement made by the Fruit Board it is expected to market overseas the following quantities:

Apples—

United Kingdom	1,150,000
Scandinavia	60,000
Europe	100,000
Canada	60,000
South America	35,000
Eastern Markets	10,000
	1,415,000
Pears—	
All Markets	100,000
	1,515,000

Whether the total mentioned of 1½ million will be sufficient to clear the N.Z. market of all exportable fruit, is another question. The Nelson and Hawkes Bay areas report exceptionally heavy crops, free of disease and russet, which must mean a very high percentage of export fruit.

Unless reasonable rains fall before picking commences, the present dry conditions will affect the size; nevertheless, all districts, with the exception of Otago, are carrying a very heavy crop. As a result of a petition from the Otago district, which has been outside control since the inception of the movement, they will from 1938 fall into line with the rest of the Dominion and come under control.

As Control came into force in 1925, it means that the Otago district have worked on their own for twelve seasons. We understand that the decision to join the control movement has been influenced by the Government Guarantee, which has now been fixed at 11/- per case—a figure which shows a very reasonable return to growers despite the increased costs brought about by Labour legislation.

While the future of the industry may be clouded in obscurity, the immediate outlook is good, as the grower is given every encouragement to produce maximum crops.

Local Markets:

Prices for plums, apricots, peaches, etc., have held at a fairly satisfactory level, despite the large quantities available because of the hot spell. It would appear that the public are turning to a fruit diet as a result of the exceptional Summer. Gravensteins are making their appearance, and the first of this fruit for export has been received into store.

Charging For Cases:

The Department of Marketing promised some months ago to introduce this measure, and we learn unofficially that it will become effective this year. This system of charging for cases has been in force throughout the South Island for many years, and there is quite a difference of opinion as to the actual value to growers. It is claimed by sellers that the charge for the case is always calculated in the buying price, except where very high-class and expensive fruit is sold in case lots by the pound. If this measure is introduced, a controversy is almost sure to arise later on as to whether the grower has secured any actual benefit.

NEW ZEALAND.

Big Apple Crop — Pears Normal.

A SATISFACTORY CROP of Apples is developing in N.Z.; Pears are normal. The latest report from the Director of the Horticulture Division, Mr. J. A. Campbell, gives the following deails:—

Auckland—Apples: Jonathan, Delicious, and Dougherty good; C.O.P. and Dunns light; other varieties slightly below average. Pears slightly below average,

Nelson.—Apples: C.O.P. heavy; all other varieties good to heavy, total crop 15 per cent. above average. Pears: Average, Winter Cole medium to good.

Mapua. — Apples: C.O.P. heavy, Sturmers medium to good; other varieties good. Pears—about 85 per cent. of normal.

Hastings. — Apples: All varieties heavy, probably 25 per cent. above normal; C.O.P., Sturmer and Dougherty very heavy. Pears: Normal good crop.

Gisborne. — Apples: Grav., 20 per cent. below normal, all other varieties normal.

Hamilton.—Apples: Crop about 90 per cent. of normal. Dunn's light; Jon. medium; Grav. 85 per cent., Cox's 80 per cent.; Del., Sturmer, Dougherty and other varieties good. Pears: Crop 20 per cent. above normal. Williams very heavy.

Tauranga. — Apples: Grav. and Dougherty above normal. Jon., Del., and Sturmer average; C.O.P., light; Dunn's, medium. Other varieties not quite up to average. Pears: Light, probably 50 per cent. of normal.

Palmerston North.—Apples: Average crop. Pears: Average.

Motueka. — Apples: C.O.P., Jon., Sturmer good to heavy; Grav., Dunn's, Del., Dougherty and other varieties good. Pears: Good; Winter Cole patchy.

Blenheim. — Apples: C.O.P., average; Jon. heavy; Sturmer and Del., probably 20 per cent. below normal average; Dunn's very light. Other varieties good. Pears: Crop below average.

Christchurch.—Apples: C.O.P. good; Jon. and Dunn's light to medium; Del. fair to good; Sturmer good to heavy. Other varieties medium to good. Pears—good.

Dunedin.—Apples: C.O.P., Jon. and Dunn's light to very light, owing to frost damage in some localities. Sturmers light to medium; Del. medium to good. Other varieties about 20 per cent. below normal average. Pears—light to medium.

Alexandra.—Apples—good. Pears, not quite up to normal.

PORT
..of..
LONDON

The World's Best Fruit Market

Sales can always be depended on for best quality fruit at highest prices.

Besides its own vast population, LONDON supplies the seaside resorts. Tourists make their headquarters in LONDON and want the best fruit.

LONDON has always been the centre of the Australian and New Zealand fruit trade, and although many efforts have been made to divert it to other ports, the presence of its huge local market with expert distribution agencies will ensure it remaining so.

LONDON is an INTERNATIONAL MARKET where the WORLD BUYERS congregate, and where the highest prices for best produce are always obtained.

All particulars as regards charges, etc., can be obtained from:

Capt. A. W. Pearse, Port of London Authority, 22 Loftus St., Sydney

Export & Commercial News

Overseas Marketing of N.S.W. Products

Premier Stevens Sees Little Prospects for Developing the Export of N.S.W. Oranges to England.

AN INTERESTING REPORT is just to hand from the Hon. B. S. B. Stevens, M.L.A., Premier of New South Wales, dealing with the overseas marketing of certain primary products of N.S.W., particularly meat, butter, eggs, and citrus fruits. There are also included tables setting out the port dues, storage, and handling charges on butter, eggs, fresh fruits, canned fruits, and meat at London, Liverpool, Manchester, Glasgow, Bristol, Hull and Newcastle.

The report covers 86 pages, and deals comprehensively with the subjects under review. Regarding citrus fruits the report states as follows:—

The whole of Britain's supplies are imported and in 1936 amounted to 9,500,000 cwt. Oranges, 1,000,000 cwt. Lemons, and 1,100,000 cwt. Grapefruit. Imports of Oranges are relatively constant, requirements of Lemons have decreased since 1933, while supplies of Grapefruit have increased by over 100 per cent. since 1929. Australia has attempted since 1933 to establish an export trade in Oranges to the United Kingdom, but has been handicapped by distance, heavy marketing costs and technical difficulties. Our main supplies reach the United Kingdom in the four months August to November, when total import requirements of Oranges are approximately 2,000,000 cwt. Of this quantity, Empire countries supply approximately one half—almost entirely from South Africa. The balance in these months is supplied mainly by Brazil and (sometimes) the United States. Australian exports of Oranges to the United Kingdom have decreased since 1934 and are considerably less than 1 per cent. of the total imports during the season.

Summarising his impressions, Mr. Stevens states:—

Rapid expansion of the citrus fruit industry of South Africa, Palestine and Brazil, all of which are much nearer the world market than Australia, is likely to lead to intensified competition in the markets of United Kingdom and Europe in the next few years. The exporting seasons of South Africa and Brazil synchronise with our own.

The quality and condition of some of the shipments from New South Wales last season was not good. In view of the many technical difficulties and heavy marketing costs there are many obstacles to be overcome before we can gain a firm footing in the large citrus markets of United Kingdom.

FASTER TRAINS FOR FRUIT.

Goulburn Valley to Benefit.

Beginning on January 17, faster fruit trains from Goulburn Valley district to Melbourne will be run to a later schedule. Trains will leave Kyabram at 6.35 p.m. instead of 6.5 p.m., Merrigum at 7.0 p.m. instead of 6.30 p.m., Tatura at 7.30 p.m. instead of 7.0 p.m., Shepparton at 7.15 p.m. instead of 6.45 p.m., and Mooroopna at 7.40 p.m. instead of 6.5 p.m., arriving at Melbourne at 2.35 a.m. This time of arrival will be the same as previously.

CANADA'S CROP OF APPLES.

Exports Greatly Increased.

Prairies Now Grow Fruit.

Total exports of Apples from Canada this season to the end of September amounted to the equivalent of 286,344 barrels and 117,252 boxes, as compared with 81,460 barrels and 116,667 boxes in the corresponding period last season. Most of these shipments went to the United Kingdom, although small quantities went to the British West Indies and Cuba.

Fruit growing has been developed in the Canadian prairie provinces where previously it was formerly thought impossible to grow anything but cereals, owing to the high winds and the intense cold of Winter. The latest development by the Canadian Government Experimental Farms is a dessert Apricot which has been named the "Scout Apricot," and which grows to a height of 12 feet and produces fruit generously, even on the topmost branches. It was produced by the development of species received from Manchuria. Other fruits adapted to prairie conditions include Apples, Crab Apples, Pears, Plums, Cherries, Grapes, different types of small berries and also nut trees. One of the Government experimental stations close to Winnipeg has contributed, since 1929, 77 new varieties of fruits and 14 new varieties of ornamental flowers.

VICTORIA

APPLE AND PEAR EXPORT.

The Superintendent of Horticulture (Mr. J. M. Ward), states that grade standards for the Apple and Pear export season, which opens about the middle of February, will be similar to those operating last year.

Strict supervision would be exercised, particularly regarding color requirements, russet, and spray residue. Growers were warned not to remove spray residue with oil, oily cloth, or dirty sheepskin. Fruit so treated would not be passed for export. Jonathan Apples should be approximately one-quarter red.

Fruit will be inspected at country stations from which a minimum of 30,000 cases are despatched. Fruit from stations handling less than this number of cases—Narre Warren, Officer, Beaconsfield, Tynong, Garfield, Nar-nar-goon, Bunyip, Amphitheatre, and Elmhurst—will be examined at the ship's side.

Every case of Apples should contain not less than 40 lb. of fruit. Slack-packed cases would not contain this quantity. Packing material, such as corrugated strawboard, should be placed on the top and bottom of Apple cases, and on the top, bottom, and sides of all Pear cases.

Packers should be instructed to reject every Apple or Pear having a blemish, otherwise the 10 per cent margin allowed would be exceeded. Illustrated pamphlets on packing fruit for export may be obtained free of charge from the Director, Department of Agriculture, Melbourne.

PATENTS
GEORGE A. U'REN
PATENT ATTORNEY
HEATY HOUSE. 499 LITTLE COLLINS ST. MELBOURNE.

English Apples and Pears

Marketing Scheme Not Accepted.

Voluntary System Under National Mark Favored.

The National Farmers' Union recently reported that the acreage of those growers in favor of a Marketing Scheme for Apples and Pears is 34,675 acres of market varieties of Apples and Pears, and 55,581 acres of market Apples and Pears against. Those growers of cider and perry fruit in favor are 447,971 acres, and 2,235 acres against.

It will be noted that the voting is done by acreage and not by counting heads. This is in accordance with the Government view that not all growers should be allowed an equal voting capacity for marketing schemes, but should be given votes in accordance with their size in the industry.

The Fruit Committee of the N.F.U. has accepted the recommendation of the Kent County Branch that consideration of the scheme should be deferred for the present, in view of the attempts which are being made to organise schemes for voluntarily marking Apples on National Mark standards.

TOMATOES FROM WERRIBEE.

During the week ended January 15 some Werribee market gardeners received up to 25/- per case for their best Tomatoes. The prices averaged 18/- to £1/1/- per case.

Make Your Export Produce a Safe Investment by Shipping to and through

SOUTHAMPTON

PEARS and APPLES

A few days saved mean the difference between profit and loss . . . . . .

There are many reasons why you should ship your perishable produce—particularly PEARS—through Southampton, England's most modern port. Here are some of them:—

Substantial local markets with a fruit sales room actually on Southampton Docks Estate. Quicker and frequently cheaper transit to Southern and Midland Towns. The Southern Railway of England runs express freights from Southampton to all these centres, saving days and money.

London is reached by express freight trains in three hours from Southampton—All fruit unloaded in Southampton to-day will be at Covent Garden, Spitalfields, or Borough Market for early morning market to-morrow, with days saved as against fruit discharged by ships calling at Continental and other outports first. The slight additional cost is altogether outweighed by the tremendous advantages of days saved.

Deterioration is avoided by special arrangements for sorting to mark, and quick insulated trains direct to London.

Southampton cold stores available for storage of produce for local consumption or Midland deliveries. Pears can be discharged from ship to cold store in less than 5 minutes.

Before the next exporting season, consider these advantages, and ask for Southampton Discharge for London Markets.

THE QUICKEST WAY TO BRITAIN'S MARKETS

For rates and all general information, write to the Australasian Agents:

SOUTHAMPTON DOCKS

Owned and Managed by

SOUTHERN RAILWAY OF ENGLAND

Australasian Agents:

H. W. BEVAN & CO. PTY. LTD.

55 YORK STREET, SYDNEY

"DUERDIN" HOUSE, 14-16 BOND STREET, MELBOURNE

APPLE EXPORTS.

Agreement Renewed Between Australia and New Zealand.

An agreement has been completed with the Australian Apple and Pear Export Council and the New Zealand Fruit Export Control Board regarding joint quantities of Apples which are to be sent to the United Kingdom in the coming export season.

The agreement was completed on the same basis as last year, namely, Australia 76¾ per cent., New Zealand 23¼ per cent., and the maximum totals are as follows:—Australia 3,750,000, New Zealand 1,150,000, making a total of 4,900,000.

The foregoing quota arrangements do not apply to Apples for the Continent, the East, nor any other place; furthermore, there is no quota system with regard to export of Pears to any destination.

One cannery in California packed 200,000 cases of olives during the 1937 olive season.

U.K. AND CONTINENTAL MARKETS.

London: Prices for Apples and Pears at the end of 1937 and early in 1938, were as follow:—

Canadian: Jons., ex. f., realised 9/3 to 10/3; fancy, 9/- to 9/9; Winesaps, ex. f., 8/9 to 9/6; fancy, 8/6 to 9/-. U.S.A.: (Washington), Jons., ex. f., 9/- to 9/9; Oregon Newtowns, ex. f., 8/- to 11/-; fancy, 7/6 to 10/-.

Novia Scotian barrels (No. 1 Grade): Golden Russett, 15/6 to 23/-; Domestic Grades slightly lower. Virginian barrels: Albermarle, 20/6 to 24/6; Yorks (Cleos.), 18/6 to 21/-.

Pears—Pacific Coast: Winter Nelis, 10/6 to 11/- per box; Beurre Bosc, 10/9 to 12/6.

Rotterdam (8/12/37): Prices realised at auction for American fruit were: — Washington Anjou Pears, fancy 13/7 to 14/2 per box. Apples, Jon., fancy 8/10 to 9/5 per dox.

Cable Address: DAVIS, MELBOURNE. Code: "ABC," 4th and 5th Editions. Box, G.P.O. 148B.

J. DAVIS PTY. LTD., *Fruit Merchants*

8 WHOLESALE FRUIT MARKET

Consignments solicited. One Trial Invited. Best Prices obtained. Prompt Advice and Payment.
Telephone, F 3232. Bankers: The National Bank of Australasia, 271 Collins Street, Melbourne.

Telegraphic Address: "Listeria," Melbourne. Postal Address: G.P.O. Box 555D. Telephone: F 6341.
Codes: Bentley's A.B.C., 5th Edition. Private: Windsor 4535.

GEO. LISTER PTY. LTD. (Managing Director: J. R. VAIL)

Selected Agents for all Growers' Organisations Throughout the Commonwealth.
Wholesale Fruit Merchants — Licensed Commission Agents — Importers and Exporters.
No. 12 WHOLESALE FRUIT MARKET, MELBOURNE.

Having carried on a successful business for over half a century, our name stands high in the Wholesale Fruit Trade of Australia. Our spacious premises at Melbourne Wholesale Fruit Market are admirably adapted for the conduct of our large business, and growers are assured that our best efforts are always at their disposal.
Bankers: Commercial Banking Co. of Sydney, MelbourneBranch. Fidelity Bond Guaranteed by I.O.A. Insurance Co.

Silbert, Sharp & Davies Pty. Ltd.
FRUIT MERCHANTS
17 Wholesale Fruit Market
'Phone: F 2287.

REGULAR SUPPLIES OF GOOD FRUIT, WELL PACKED AND GRADED, BRING THE BEST RESULTS.

A. MILLIS & SONS
34 Wholesale Fruit Market
EXPORTERS AND IMPORTERS
Specialty—Prompt Returns. Cheques every Wednesday. Phone: F 1862

J. W. ROSS
13 Wholesale Fruit Market
WHOLESALE FRUIT MERCHANT
Prompt Returns and Sales Notes Daily.
Tel., F 2426.

G. WOOLF
29-30 Wholesale Fruit Market
WHOLESALE FRUIT MERCHANT & COMMISSION AGENT
Telephone: F 5550.

BELL, BANSON Pty. Ltd.
Wholesale Fruit Merchants,
20 Wholesale Fruit Market, Melb.
CONSIGNMENTS OF FRUIT AND VEGETABLES SOLICITED.
Tel.: F1023; Private: JW2528.
Bankers: E.S. & A. Bank, Market Branch.

T. Stott & Sons *FRUIT MERCHANTS* ESTABLISHED 1882.

26 Wholesale Fruit Market, Melbourne. And at VICTORIA MARKETS.
COUNTRY AND INTERSTATE ORDER TRADE SUPPLIED.
SHIPPING No. 41. PROMPT SETTLEMENTS. CONSIGNMENTS SOLICITED.
PHONE: F 4370. Bankers: Bank of Australasia, Melbourne.

Regular Supplies of Quality Fruit well Packed and Graded will realize the Best Prices.

H. LOUEY PANG & CO. PTY. LTD.
FRUIT AND PRODUCE MERCHANTS
No. 4 WHOLESALE FRUIT MARKET, MELBOURNE
G.P.O. Box No. 795F, Melbourne.
References—E. S. & A. Bank, 225 Swanston St., Melbourne.
Telegraphic Address: "PANGANCO." GOOD PRICES ASSURED
Cheques Sent Promptly. F 6532.

Tim Young & Co. Pty. Ltd.
WHOLESALE FRUIT MERCHANTS
18 Wholesale Fruit Market

Growers can be assured of receiving the very best service and prompt returns.

Cable Address "TIYOUNG"
A.B.C. Code, 5th Edition.
Box 28a, G.P.O., Melbourne.
TELEPHONE, F 4321
Bankers:
E.S. & A. Bank Ltd., Melbourne—335 Swanston Street.

Stencil or Labels on application.

CONSIGN YOUR FRUIT TO
R. A. WING & CO.
Wholesale Fruit and Produce Commission Agents,
No. 37 Wholesale Fruit Market, Melbourne.
Branches 141 Little Bourke Street and Victoria Market.
TELEPHONE: F1744.

CONSIGNMENTS OF FRUIT AND VEGETABLES
Assured Highest Market Rates.
P. A. PATRIKEOS
36 Wholesale Fruit Market
Melbourne
Telephone: F2227.

H. & S. FRANKEL
(Established 35 Years)
No. 44 WHOLESALE FRUIT MARKET, MELBOURNE.
Growers in all States are invited to send consignments. Highest market rates and prompt settlements.
Telephone: Store F4374; Bankers. Private F1555 & F3711.
Commonwealth Bank of Australia.
£500 Fidelity Bond Guarantee.

A. E. PITT
Established 1893.
Member of Wholesale Fruit Merchants' Association of Vic.
14 WHOLESALE FRUIT MARKET, MELBOURNE.
Consignments Solicited from all States.
Growers Will Receive Top Market Value and Prompt Returns.
Fidelity Bond Guarantee for £1,000
Pea and Bean Stands,
11 and 12 Victoria Market.
Reference—E.S. & A. Bank. Elizabeth St. Branch, Melbourne.
Phone: F 5035.

Port Line
... REGULAR SAILINGS ...
of Fast Vessels to the U.K. and Continent, having well equipped holds and machinery for the carriage of Refrigerated and Chilled Produce.
Port Line Limited
(Inc. in England.)
1 to 7 Bent St. Sydney, N.S.W.

TASMANIA
Leading Australian Firm of Fresh Fruit Exporters.
Manufacturers IXL Jam and Canned Fruits.
Hop Factors—Largest Cool Stores for Hop Storage in Commonwealth.
All Orchard Supplies available at all times.
Agents for—Associated Evaporated Apple Manufacturers, Eagle, Star & British Dominions Insurance Co. Ltd., Federal Steam Navigation Co. Ltd., Scottish Shire Line of Steamers, Osake Shosen, Kaisha, Blue Star Line Ltd.
Correspondence Invited.
H. JONES & CO. PTY. LTD
Hobart.

REILLYS CENTRAL PRODUCE MART LTD.
MORAY PLACE, DUNEDIN.
Importers and Exporters
of all lines of FRUIT & PRODUCE.
We respectfully solicit consignments or correspondence in regard to supplies of Oranges from Victoria and New South Wales.
Telegams & Cables "REILLYS DUNEDIN"
Code 'Bentleys' P.O. Box 526

Producers' Co-operative Distributing Society Ltd.
Are now paying a Bonus of 10% on all Commissions charged to regular clients of the Fruit & Vegetable Section for year ending Sept., 1935
Send Your Consignments
TO US
MELBOURNE & SYDNEY.

The Victorian Fruit Marketing Association

THE monthly meeting of the Executive of the V.F.M.A. was held at the C.T.A., Melbourne, on January 25, 1938.

There were present: Messrs. G. W. Brown (Chairman), W. H. Carne, A. S. Harrison, J. B. Mills, F. R. Mellor, R. A. W. Bailey, H. M. McLean, Geo. Douglas, G. H. Sprague, W. Young, K. Weeding, H. J. Noonan, J. J. Tully, S. Brown, J. M. Ward, W. M. Carne, E. N. Robinson (Dept. of Commerce), D. Grant (Drouin), W. A. Thiele (Doncaster), and R. E. Boardman (Secretary).

Apologies were received from K. V. Eagle, E. Russell, F. Moore, J. W. Barker and F. Cave.

Insurance on Fruit.

The Fire Underwriters' Association wrote stating that with regard to insurance on fruit in cool store and from cool store to ship, the question of making provision for policies to be increased in value during their currency on account of "naked" fruit being wrapped and packed for export, this was not a question for the Underwriters' Association to legislate for, but one for arrangement between individual grower and his insurance company.

Mr. Weeding stated that as regards Pears being transferred from the orchard to the cool store or in the cool store awaiting export, counsel's opinion was definite that such fruit was under usual circumstances uninsurable by the shipper because the shipper did not assume responsibility or ownership until the fruit was in the ship's hold and the Government certificate had been issued. Growers, however, could specifically authorise their shippers to act as their agents to effect insurance—i.e. (a) while Pears were being transferred from orchard to cool store or in cool store awaiting export (b) while the Pears were being transferred from cool store on the direct journey to ship's side.

The needed forms in this connection had been prepared.

With regard to Apples, as soon as the packed cases of Apples commenced their direct journey from the orchard or packing shed to the ship's side, an insurance could be effected by the shipper, provided the shipper had been appointed the grower's agent. Such insurance would cover fire, theft or collision: this is known as the "Orchard to Warehouse" clause. Unless growers specifically appointed their shipper to act as their (the growers') agent, the fruit was at the grower's risk. The needed forms had been prepared and growers were advised to sign same.

Mr. Weeding further stated that with regard to the insured fruit, rejected or shut out at ship's side, the policy could include a clause covering the insurance on that fruit during its journey back to cool store or packing shed, and also while in the process of re-packing or in transit to another steamer, provided the quantity and details were given and a small additional premium paid.

Mr. Tully stated that with regard to fruit in cool store, whether for precooling for export or long storage, automatic insurance cover was usually provided, thus doing away with any over-lapping.

There was further discussion, in which the question of the ownership of the fruit was raised, and the form of authority to be given by growers to cool stores' directors, to enable a legal insurance to be effected.

It was decided to request the present Committee to continue its services and to obtain legal advice in settling the points in doubt.

Fruit Packing Instruction.

Letter received from the Minister for Agriculture, Mr. Hogan, stating he had arranged to appoint three additional Fruit Packing Instructors, in order to improve the method of packing of fruit both for local and export markets. With regard to the appointment of these officers, also Mr. W. H. Harris, on the permanent staff, this raised the whole question of the appointment of officers on the temporary staff. There was a large number of these in the Public Service, many with claims equal to that of Mr. Harris, and he was reluctant to take any step that would lead to the Government being embarrassed by wholesale applications of the like nature.

Grading Regulations.

The chairman reported that a conference had been held on January 11, 1938, when representatives from kindred associations met to consider the report of the recent Interstate Grading Conference.

After full discussion it was unanimously decided to adopt recommendations of the Sydney conference as follows:—

Pears: The word "sound" to be included in the definition of "Good," and domestic grades.

Apples: The word "sound" to be included in the definition of "Good" grade. That "Domestic" grade be eliminated and that **Blemish Tolerance** in "Good" grade be amended as follows:—

Apples: 2¼in. and over, blemish not to exceed ⅛in., under 2¼in. the permitted blemish to be ¼in.

Superficial Hail only—

Apples: 2¾in. and over, the permitted blemish to be 1in., under 2¾in. the permitted blemish to be ½in.

The minimum sizes agreed upon were as follow:—

2½in. in diameter: Aitken Seedling, Adams Pearmain, Allsopps, Ben Davis, Buncombe, Charles Ross, Cleo., Coleman, Commerce, C.O.P., Delicious, Democrat, Elsie Grant, Foster, Geeveston Fanny, Golden Delicious, Granny Smith, Grav., Grimes Golden, Irish Peach, King Cole, King David, King Pippin, Kirks Carrington, MacIntosh Red, Newtown Pippin, Nickajack, Northern Spy, Perfection, Ranelagh, Red Carrington, Rokewood, Romes, Senator, Strawberry Pippin, Spitz., Scarlet, Schroeder, Statesman, Stayman's Winesap, Sturmer, Tasman's Pride, White Winter Pearmain, Willie Sharp, Winter Majetin, Worcester Pearmain, and unclassified varieties.

2¼in. in diameter: Crofton, Dougherty, Jon., Pomme de Neige, and Yates.

2¼in. in diameter: Alex., Alf., Crow Egg, Duke of Clarence, Dunns, Edna May, Hoover, London Pippin, Lord Nelson, Lord Suffield, Lord Wolseley, Mammoth, Mobb's Codlin, French

ESTABLISHED 1900

Ridley & Houlding

LIMITED

10 Russell Street, Covent Garden, London, W.C.2

Fruit Importers and Merchants

Personal Attention given to All Consignments.

All particulars and advice re Advances and Shipping will be supplied by

The International Fruit and Mercantile Co.

6, Wholesale Fruit Markets, Franklin Street, Melbourne

(Sole Agents for Victoria.)

A. J. Walshe & Co. (1937) Pty. Ltd., 45 Davey St., Hobart, Tasmania.

Murdoch Bros. Pty. Ltd., Market Place, Hobart, Tasmania.

Mr. W. Pitts (Overseas and Interstate Export Co.), 20 Market St., Sydney, New South Wales. (Sole Agent for:—New South Wales, Queensland, South Australia.)

Cables: "Botanizing, London."

Licensed under Farm Produce Agents Act.

F. CHILTON

ESTABLISHED 1894

Fruit Commission Agent

SHIPPING NO. 56.

HIGHEST MARKET PRICES — PROMPT RETURNS — RELIABLE ADVICE.

Registered Address for Telegrams and Cables: "CHILTONS."

References:—Bank of N.S.W., Haymarket, Sydney. and Growers throughout Australia.

CITY FRUIT MARKETS, SYDNEY.

N. & A. Fruit and Produce Company

Licensed Farm Produce Agents. (No. 2253)

HEAD OFFICE: 2 STEEL STREET, NEWCASTLE.

References: Bank of New South Wales. Shipping Numbers on Application.

N&A

BRANCH: 6 CITY MARKETS, SYDNEY.

Telegraphic Address: "NANDA."

PHONES: Newcastle, 1365. Sydney, MA 8428.

WE WANT YOUR BUSINESS — IN RETURN, WE OFFER GOOD AND PROMPT SERVICE.

GROWERS!—Consign your Fruit to—

JAMES SLATER

21 CITY MARKETS, SYDNEY.

Postal Address: Box 36, Haymarket P.O., Sydney. Established 1882.

SHIPPING NO. 19. 88 VIC. & TAS.

Stencils, Advice Notes, etc., on Application.

CONSIGN YOUR FRUIT TO

HOPKINS & LIPSCOMBE

Proprietor: STANLEY H. POGSON.

LICENSED FARM PRODUCE AGENT.

MUNICIPAL MARKETS, SYDNEY.

PROMPT RETURNS. SHIPPING NOS.—58 Vic. and Tas., 68 Q'land.

Bankers: Bank of N.S.W., Haymarket, SYDNEY.

Est. 1901. Phone: MA 3826.

GROWERS—Consign your FRUIT & VEGETABLES to

F. G. STEVENS and Sons

Licensed Farm Produce Agents.

Head Office: 3 QUAY STREET, SYDNEY.

Sales Personally Supervised. Prompt Advice and Returns. SHIPPING NO. 127.

Telephone MA 3846. Established 1900.

W. MUSGROVE & SON

Licensed Farm Produce Agents.

3 City Fruit Markets, Sydney.

Our Motto—Quick Sales and Prompt Settlements.

Forwarding Numbers:

Tasmania, Victoria, S. Australia, No. 53.

Queensland, Northern Rivers, No. 18.

FRUITGROWERS!

For Satisfactory Results, Send Your Fruit to

F. H. G. Rogers

Fruit Selling Expert,

Municipal Markets, Sydney.

Shipping No. 83. Established 1900.

Regular Consignments of well Packed and Graded Fruit Realize Best Prices.

Crab, Prince Alfred, Reinette du Canada, Ribstons, Stewarts (Ballarat), Twenty Ounce, and Wellington.

2¾in. in diameter: Aromatic, Australian Beauty, Huon Belle, Jubilee, Rymer and Stone Pippin.

A letter was received from the Supt. of Horticulture stating that action was being taken to amend the regulations accordingly.

Australian Markets Committee.

The chairman advised that in the formation of the Victorian Section of the Australian Markets Committee of the Apple and Pear Council, three delegates were to be appointed from each of the following:—The Orchardists and Fruit Cool Stores' Associations, the Northern and Southern Fruitgrowers' Association and the V.F.M.A.

The function of the Australian Markets Committee would be to assist in obtaining accurate market surveys and statistics of fruit consumption, also publicity to increase fruit consumption.

It was decided to appoint the following from the V.F.M.A.:—Messrs. F. Moore, R. A. W. Bailey (alternative W. H. Carne), and H. M. McLean (alternative Geo. Douglas).

The chairman stated that Apple production was increasing throughout Australia, but overseas and local markets were not expanding correspondingly.

Mr. Harrison stressed the necessity for supplies of good fruit to be available as a first essential in any campaign to increase consumption.

Mr. Sprague urged increased efforts to secure the needed funds.

There was a vigorous discussion on various phases of marketing, including—the need for severe inspection to eliminate inferior fruit, licensing of all who sold fruit in Victoria Market, reduction of varieties, increased legislative powers.

Mr. Mills reported that every effort was being made by the Apple and Pear Council, as instructed by their annual meeting, to secure the needed funds.

Alternative suggestions were made re securing funds, and it was decided that a meeting of the Markets Committee be called within two weeks.

Plums.

The chairman stated that at the recent conference of kindred associations, grave concern was expressed concerning the lack of sales for Plums this season. Conflicting views had been expressed as to the effect of the fixing by the Sugar Concession Committee of £7 per ton. A letter had been sent to the Sugar Concession Committee asking if they could make arrangements for sales to factories at a lesser figure.

Mr. Young reported that whereas Plum jam had by far the greatest sale, the supply of Plums appeared to be greatly in excess of the demand, and quantities were increasing. Further, the cost of fruit in Plum jam, at the price fixed by the Committee, had practically no bearing on the case, as £1 per ton meant 1½d. per dozen on the cost of the jam. If growers agreed to accept, say a £2 per ton less, the reduction in cost would only be 3d. per dozen or ¼d. per tin. A reduction of £4 per ton for the fruit would be necessary before the jam could be reduced ½d. per tin. An increase in Plum jam sales because of this production was unlikely. Furthermore, the selling of Plums at £3 per ton, including cartage, was utterly unprofitable. Apparently a state of over-production of Plums had been reached.

There was further discussion on the bearing of the sugar prices on the purchase of fruit. Mr. Hutchinson expressed the belief that Plums sold at 1/- to 2/- per case in the market were still finding their way to factories. Mr. Young stated that if growers would put forward any proposals to assist in improving the position, he would be most happy to take them up with the Sugar Concession Committee.

There was a discussion on the subject of Plums for the State Relief Committee, it being stated that substantial quantities of Plums were being forwarded gratis to this Committee, also that in some instances the Committee was paying £3 a ton for the Plums. Mr. Young considered that as the Government, in accordance with its relief policy, arranged for for payment for clothing, groceries, etc., there was no reason why fruit should not also be paid for by the State at a just price.

Arsenical Residue.

Mr. S. Brown referred to the press statement issued by the Superintendent of Horticulture, warning growers not to remove spray residue with oil, oily cloth or sheepskins, as fruit so treated would not be passed for export.

Mr. Ward said his report to the press had specially mentioned wiping with "dirty" sheepskins. The British Government had defined their attitude regarding the tolerance of arsenical residue. Where fruit was exported with excess residue, the person offering the fruit for sale was liable for prosecution.

Mr. Mills said that he believed great damage had been done to the fruit in the removal of arsenical spray residue.

Bounty on Exports.

Mr. W. H. Carne proposed that an approach be made to the Commonwealth Government for a bounty on Apples and Pears exported in 1938.

Mr. Mills stated that the Prime Minister had been requested to receive a deputation on the subject of a review of the 1937 season in the light of fresh figures available. The subject of a bounty on 1938 could also be dealt with when that deputation was arranged.

Other items dealt with included:—Sale of Large Fruit by Count, Freight on Fruit to Germany, Netherlands East India, Moisture Content of Pear Boxes, Trade with India, etc.

APPLE AND PEAR EXPORTS

The Victorian Fruit Exporters' Handling Committee has arranged the following programme of 18 vessels from Melbourne between March 2 and April 2, 1938:—

Sailing Date.	Steamer.	Discharge. Apples.	Pears.
March 2.	—Perthshire	Hull, London, L'pool, Glasgow	London
March 2.	—Idomeneus	Liverpool and/or Glasgow	
March 5.	—Somerset	Hull, London, Manchester Liverpool, Antwerp	London, Hull
March 5.	—Hororata	London, Liverpool, Hamburg	
March 8.	—Maloja	London, Marseilles	
March 9.	—Tuscan Star.	London, Liverpool	London, Liverpool
March 9.	—Nestor	Liverpool, Glasgow	
March 12.	—Moreton Bay	Southampton	Southampton
March 15.	—Orontes	London	London
March 16.	—Imperial Star	London, Liverpool	London, Liverpool
March 16.	—Asphalion	Liverpool, Glasgow	
March 19.	—Clan Macarthur	London, Liverpool, Glasgow	
March 22.	—Ceramic	Southampton, London	Southampton, London
March 22.	—Strathmore	London	
March 23.	—Australia Star	London, Liverpool	London, Liverpool
March 23.	—Orestes	Liverpool, Glasgow	
March 29.	—Orcades	London	London
April 2.	—Port Nicholson		London

Leading Agents in the

BRISBANE FRUIT MARKETS

Highest Prices. **A. S. BARR** Prompt Returns.
FRUIT EXCHANGE, BRISBANE, QUEENSLAND.
Wholesale Fruit Merchant and Growers' Agent.
A Trial Solicited. Returns Speak for Themselves. Shipping No. 19.
Established 1888. Registered Telegraphic Address: "Barr, Brisbane."

— ESTABLISHED 1892. —
W. ARKELL & SONS
SHIPPING NO. 12. GROWERS' AGENTS.
Brisbane, B.12
BEST PRICES, PROMPT ADVICE AND REGULAR SETTLEMENT.
Bankers: National Bank of Australasia, George St., Brisbane.

MURRAY BROS.
Municipal Markets
BRISBANE
Consigning Nos.— RAIL 82, SHIPPING 22
Phone: B 4527.

TRY —— ROCKHAMPTON, Queensland.
Orchard Fruit Supplies CO.,
FRUIT MERCHANTS AND BANANA RIPENERS.
BUY DIRECT, AND SOLICIT TRIAL CONSIGNMENTS.
Leading Country Order Business for Central West of Queensland.
Send Sample Consignment and Arrange Prices for Season.
Brand— ORCHARD, R'TON, QLD.

Good Fruit . . .
WELL GRADED AND WELL PACKED ALWAYS FINDS A READY SALE IN QUEENSLAND.

Do not run any Financial Risk with your Fruit but Consign it to
HEDLEY GEEVES PTY. LIMITED
Telegraphic Address: "Apples, Brisbane." (Hedley Geeves, Managing Director) Registered Shipping No. 6.
FRUIT EXCHANGE—————BRISBANE
SELECTED AGENTS FOR: Established 1911.
Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd. Harcourt Fruit Supply Co. Ltd. Victorian Central Citrus Assn. Ltd.
Tasmania: State Fruit Advisory Board.
New South Wales: Griffith Producers' Co-op. Co. Ltd. Batlow Packing House Co-op. Soc. Ltd.

Interstate Market Notes & Prices

Fruit Prices in the Sydney Market

Survey of Operations for the period December 28, 1937, to January 25, 1938, by L. T. Pearce, Market Representative, Fruitgrowers' Federation of N.S.W.

EVERY SEASON has its particular problems, and the period under review has been no exception to the rule. Extremely hot and dry weather was experienced over Christmas and New Year, January 17 being reached before general rains occurred throughout the State, including the metropolitan district. The problems created were chiefly (1) quick breakdown in most stone fruits, and (2) an absence of moisture to assist the normal development of stone and pome fruits in the Western districts. Some anxiety was also experienced at the probable increase of codling moth infection in pome fruits, this being the usual accompaniment of dry weather conditions.

Rains, however, have since been general and it is anticipated that Plums, Grapes and pome fruits in the non-irrigated areas will now fill out to normal dimensions. That very ancient enemy of the fruitgrower — "brown rot"—is, however, probably more prevalent than usual, and some of the best growers of fruits are finding very great difficulty in delivering the goods to their satisfaction. Late metropolitan Peaches and Narrabeen Plums have been particularly liable to this trouble.

The earliness of the stone fruit season resulted in a comparative scarcity of Peaches around Christmas and New Year, and it was only heavier deliveries of the Elberta type from Victoria and the Murrumbidgee Irrigation Area that caused values to recede on about January 11. Since that date, a gradual lightening of supplies has assisted in a slight recovery being made, but the market still carries stale fruit that is unattractive to most buyers.

Wastage over the New Year holidays was probably less than usual, due to the light supplies of stone fruits. Unpopular types of Plums and an unexpected influx of **Passionfruit** being the types that experienced chief wastage. Some difficulty also was experienced in holding the condition of **Bananas**, supplies having increased steadily and weather conditions being very unfavorable to satisfactory ripening, and the maintenance of a firm condition.

Although

new season Apples

are now plentiful, the annual shortage of colored eating types became very apparent early in the New Year, and buyers took with eagerness the first **Gravenstein** that arrived; and, although **Carrington** is a poor type of Apple, fruit above 2⅜in. in size sold readily. Latterly, **McIntosh Red** have appeared from the Camden district chiefly, and these have experienced good demand.

Old season Apples continue to arrive from Tasmania, Christmas week witnessing the arrival of 13,000 cases, while, since the New Year, 1,300 to 1,400 cases have arrived each week. These have been chiefly Democrat, which sold up to 13/- owing to the scarcity of colored fruit. Stocks of old season fruit still exist in both the cool-store and the Sydney market, these being of the **French Crab** and **Sturmer Pippin** varieties chiefly. **It is, however, improbable that this fruit will ever be sold.** Excessive heat in certain N.S.W. districts resulted in some fruit being sunburnt, and difficulty is anticipated in clearing these, and also extremely small sizes of colorless Apples.

The Pear season

commenced at the beginning of the year, **Clapp's Favorite** arriving from Victoria, followed by **Williams** a little later, and, at the present time, supplies are fairly heavy from the southern State. Most of this fruit is 2⅛in. and 2⅜in. in size, a few N.S.W. Williams of larger size also appearing. Supplies have not been excessive, and values have been held comparatively comfortably around the 6/- to 8/- range.

Peaches from Victoria and **Angelina Plums** appeared to sell better than is usual, although there were a number of occasions when the Peaches were rather too ripe, and the Angelina Plums generally speaking were small. Nectarines have been very popular, but again the smallness of the fruit prevented the best values being obtained.

The Valencia season

is now well advanced, but there appears to be no reduction in quantity as the false or second crop is a large one, and much fruit remains to be marketed. Around the holiday period consignments were received from Victoria, but values at 8/- and 9/- were apparently unattractive and supplies have latterly not been observed. Many N.S.W. growers who did not experience a main crop must be disappointed at the values achieved for certain of their second crop, for much of this is pale in color, very thick in the skin, and many arrivals are blemished seriously by black spot. Within the last two weeks much of this fruit has been unsaleable, that is, unless 1/- to 1/6 could be classed as a sale, On the other hand, sales have been effected to 7/- and 8/-, the reasons for the better sales being difficult to ascertain. Main crop arrivals of Valencias are now mostly very large in size and much of the fruit partly green, the buyers discriminating against large sizes unless of very special skin quality.

Lemons have been plentiful and, although quick breakdown occurred in the majority of coastal and metropolitan arrivals, buyers appeared content to purchase such fruit at 4/- to 7/-, rather than to pay 10/- and 12/- for an article of a better class, An improvement in values, however, took place this week due to the coastal rains, and the best quality fruit improved to 13/-, demand appearing to be firm.

Victorian Tomatoes appeared early in the New Year, and sold around 12/- per bushel; but, owing to extremely ripe fruit being included with the immature fruit, sale became difficult. Local supplies also became unpopular, much of the fruit appearing to be water saturated and unfit for long distance travelling. Most sales as a result were at a very low figure, while country order quality fruit has been in the vicinity of 8/- to 10/- for some time.

Sydney, January 24, 1938.

Market report for January 24, 1938, with review of previous week.

Apples, N.S.W. — New Season: Twenty Ounce and Mobb's Royal 4/- to 6/-, Granny 5/- to 8/-, Trevitt 2/6 to 9/-, William's Fav. 2/- to 9/-, Jon. 4/- to 10/-, McIntosh Red 5/- to 14/-, Grav. 3/- to 7/- special colored, large to 12/- few 14/-, Del. and King David to 7/-.

Pears.—Williams (S.A.) few, 10/-; Vic. 6/- to 8/-; N.S.W. Local, 3/- to 6/-, inland 6/- to 8/-, colored to 9/- per bush.

The scarcity of colored fruit still continues, but eating Apples lacking color are plentiful, also cooking varieties; 295 cases are arriving from Tasmania this week. **Pears:** Vic. arrivals of Williams have not been excessively heavy and values have been maintained. Most districts in N.S.W. are forwarding a few.

Apricots, N.S.W. — Tas. 4/- to 7/-, few higher, per half bush.; 118 half bush. cases are expected from Tas. to-day.

Bananas.—N.S.W. and Qld.: Prices according to the Banana Marketing Board of N.S.W. Regulation graded, first quality fruit: Six, seven, eight and nine inch, 7/- to 15/- per trop. case. Fully colored and over-ripe lower—specially selected country order fruit higher.

The B.M.B. advise that N.S.W. forwarded 8,863 trop. cases last week and the C.O.D. figures for Qld. totalled 2,721 trop. cases.

Citrus Fruits.—Grapefruit, N.S.W.: Local—Few special 12/- to 15/-, inland 5/- to 7/-, few 13/- per bush. Cal. 30/- to 32/6 per Cal. case.

Lemons, N.S.W.: Special and Standard. Local—Counts 88 to 138, 4/- to 7/- per bush.; 150 to 252, 8/- to 10/- per bush. Plain grade 2/- to 5/-, inland 8/- to 13/-, few higher per bush., 13/- to 14/- per two bush. crate. Cured 8/- to 12/- per bush. Vic., 7/- to 12/- per bush.

Navels.—Cal. (50 only), 35/- per Cal. case.

Valencias, N.S.W.—Local—Standard 6/- to 9/-, plain 2/- to 4/-, special 8/- to 12/- per bush. Inland, 8/- to 12/-, few higher, two bush. crates (large sizes), 13/- to 16/-. Second crop 1/- to 3/-, few to 8/- per bush.

Grapefruit. — Mangrove Mountain and Curlwaa continue to forward, also a few are coming from other sources. **Lemons:** These improved late last week, good fruit of the required size being scarce. **Valencias:** Second crop now predominate and an extraordinarily wide range is observed. Most main crops are large in size and many are green. Supplies are plentiful.

Grapes, N.S.W.—Black Muscat 8/- to 10/-, few higher; Black Hamburg 6/- to 8/- per half bush. Inferior in all types lower.

The PRINCIPAL Fruit Merchants and Exporters of SOUTH AUSTRALIA

SILBERT, SHARP & BISHOP LTD.

FRUIT MERCHANTS — EXPORTERS — COMMISSION SALESMEN
BANANA IMPORTERS AND RIPENERS

283 Rundle Street — Fruit Exchange — Adelaide

Distributors
All Gardeners' Requirements.
Implements, Manures, Sprays.
Seedsmen & Potato Merchants.

Cables & Telegrams: SILBTSHARP, Adelaide.
TELEPHONES: 5754–55.

Earle S. Caldicott

FRESH FRUIT SPECIALIST,
INTERSTATE REPRESENTATIVE,
IMPORTER, EXPORTER & COMMISSION AGENT

New Market, Adelaide

Phone: C 2882; After Hours: L 5395.

S. E. Norsworthy & Co.

Gumeracha

FRUIT EXPORTERS AND MERCHANTS
Specialising in Apple and Pear Export.
Proprietors HOME SERVICE STORES, Branch 41.
Phone: Gumeracha 2.

Growers! Consign your Fruit To

H. C. Austin

Wholesale Fruit and Produce Merchant, General Exporter, Commission Agent, Shipping Providor.

New Market, Union St., Adelaide

Phone C 746. G.P.O. Box 722. Telegrams: Austin Fruit.

Enquiries Are Invited by Advertisers on This Page for Fruit for Export or Sale on The Adelaide Market.

Arrivals are now chiefly from Kingswood, Liverpool and Orchard Hills districts, and most fruit is showing good color and appears to be sweet. Supplies are not yet considerable, but are steadily increasing.

Melons, N.S.W. — Local — Rock Melons and Cantaloupes 2/- to 5/-; inland—Cal. Cromes 4/- to 6/-, Hale's Best 5/- to 7/-, Honeydews 6/- to 7/6, few to 9/- per tropical case.

Inland supplies from the M.I.A. increased suddenly, and values, due to over supply, have been low.

Nectarines, N.S.W.—Inland, 5/- to 8/-, few large higher; Western District 5/- to 6/-, few 8/- per half bush. **Vic.**, 10/- to 14/- per bush.

Good enquiry experienced, but most fruit is very small. Supplies arriving from the M.I.A., Orange and Young districts chiefly.

Peaches, N.S.W.—Local, 3/- to 5/-, white flesh 6/-, few 7/- per half bush. Inland—Elberta 3/- to 4/6 per half case, 6/- to 8/6 per bush; Blackburn to 5/- per half case. **Vic.**, 5/- to 8/-, white flesh to 10/- per bush.

Shanghai and Blackburn continue to appear from local sources, but Elb. are practically finished from the Hawkesbury. Vic. supplies of Elb. are easing, but they are still arriving from the M.I.A.

Plums, N.S.W.—1/6 to 3/-, large special 4/- to 6/-, few higher, inferior lower per half case, Angelina 4/- to 7/-, inferior lower per half bushel. **Vic.**, 4/- to 7/-, Angelina to 10/- per bush.

Orange is now forwarding Giant Prune, Blue Diamond, Angelina and a few others, and Angelina are also coming from Batlow with a few from Victoria.

Papaws, N.S.W. and Qld. — 8/- to 14/-, few higher per tropical case; 140 tropical cases arrived from Qld. last week.

Passionfruit, N.S.W. and Qld. — North Coast 2/6 to 5/-, local to 6/- few 8/- per half bush. Special locals improved in value and supplies are fairly plentiful.

Pineapples, Qld.—Southern 7/- to 10/-, few higher; Bowen 8/- to 12/- per trop. case; 4,000 cases arrived last week from Qld., supplies heavy to-day.

Quinces, N.S.W.—Local, 5/- to 8/- per bush.

Tomatoes, N.S.W., 1/- to 4/-, special 7/- to 9/-, few higher per half bush. **Qld.**, 2/- to 5/- per half bush.

Qld. forwarded 1,208 cases from the Stanthorpe district last week, but Vic. supplies light. A wide range of values exists, as most local fruit is soft and unsuited for long distance travelling.

Herbert Wilson Pty. Ltd.

WHOLESALE FRUIT MERCHANTS AND COMMISSION AGENTS

Nos. 1 and 10, Wholesale Fruit Market, Melbourne.

Accredited Agents for Victorian Central Citrus Association and Affiliated Association.

City Telephone: F 6444. Private Phone: M 3055.

Bankers: National Bank of Australasia (Western Branch), Melb.

The Port of HULL

...IS...

THE FRUIT CENTRE

Serving a Population of Over 13,000,000 in the North and Midlands.

REGULAR SAILINGS TO CONTINENTAL PORTS provide unrivalled MARKETS for re-export of EMPIRE FRUIT.

Specially Constructed REFRIGERATOR VANS carry FRUIT direct from STEAMER to inland destinations by EXPRESS TRAINS.

RAPID HANDLING, QUICK DESPATCH, LOW CHARGES, and THE BEST PRICES. SEND YOUR FRUIT TO HULL.

TEN MODERN DOCKS entirely owned and managed by

THE LONDON AND NORTH EASTERN RAILWAY

Full information and literature supplied on application—

BURNS, PHILP & CO. LTD.,

7 Bridge Street, Sydney. 312 Collins Street, Melbourne; and Branches.

Fruit Transport by Sea

To Interstate Markets

IN REFRIGERATOR or COOL, WELL VENTILATED 'TWEEN DECK specially adapted for Fruit Carriage and fitted with powerful Electric Fans.

FAST MODERN PASSENGER VESSELS

Sail every Wednesday and Saturday for Sydney and Brisbane.
Sail every Saturday for Townsville and Cairns.

CARGO VESSELS sail Weekly for Sydney and Brisbane (Tuesdays).

SPECIAL REDUCED RATES OF FREIGHT.

FURTHER INFORMATION, SAILING DATES, ETC., WILL BE GLADLY SUPPLIED ON APPLICATION TO THE UNDERMENTIONED COMPANIES AT MELBOURNE:—

HOWARD SMITH LTD. A.U.S.N. CO. LTD.
ADELAIDE STEAMSHIP Co. Ltd. McILWRAITH McEACHARN Ltd.
MELBOURNE STEAMSHIP Co. Ltd. HUDDART PARKER LTD.

VICTORIA.

Melbourne (1/2/38).—The following prices were quoted by the Wholesale Fruit Merchants' Association: — Per Case: Apples, eating, 3/- to 7/- (few higher); cooking, 2/- to 4/- (few higher). Bananas, per double case, green, 8/- to 12/-. Cucumbers, 4/- to 7/-. Grapes, 6/- to 12/- (choice varieties higher). Grapefruit, 5/- to 12/- (few higher). Lemons, 5/- to 10/- (few higher). Oranges 5/- to 10/- (few higher). Passionfruit, half-case, 3/- to 6/- (choice higher). Pineapples, 7/- to 9/-. Plums, 1/- to 2/-. Cantaloupes, 3/- to 5/- (few higher). Nectarines, 4/- to 6/- (few higher). Peaches, yellow, 3/- to 5/- (few higher); white, 4/- to 6/- (few higher). Pears, 3/- to 5/- (few higher). Tomatoes, 3/- to 6/- (choice higher).

The Melbourne market manager of the Federal Citrus Council of Australia reports as follows:—Large-sized Valencias were slower of sale, but there was a moderately good demand for medium counts of selected grade. Supplies are still comparatively heavy for the time of the year. The demand for Lemons is limited to medium sizes, counts 180-248 in selected grades. There was a steady demand for Grapefruit. Sales were as follows:—Vals., average standards, 75-168, to 9/- and 10/-; 182-220, 6/6 to 7/-; 248-270, 4/- to 5/-; selected standards, to 11/-; specially selected, 7/- to 12/-, a few lines higher. Lemons, average standards, counts 160-248, 7/- to 8/-; large and small, 2/- to 3/- lower; good standards, to 10/-; odd, 11/-; a few specially selected, 12/-, best counts. Grapefruit, average standards, 32-38, 5/- to 6/-; 45-53, 7/-; 60-75, 7/- to 8/-, a few 9/-; 96-112, 5/- to 6/-; selected, 6/- to 11/- and 12/-; specially selected wrapped, 8/- to 13/- and 14/-, few higher.

Ship Your Oranges, Lemons, Grapes to New Zealand

All consignments for this market will have careful attention and realise highest prices if sent to

The Co-operative Fruitgrowers of Otago Limited, Dunedin

PERSONAL SUPERVISION OF EVERY CONSIGNMENT.

Cheques posted promptly.

Drop us a Line or Cable: "Peachbloom," Dunedin.

WESTERN AUSTRALIA.

Perth (26/1/38). — Apples: Jon. flats, 4/- to 11/- (special 12/6 to 15/6); Dunn's, 4/6 to 8/-; Cleo., 4/- to 9/-; other vars., 4/- to 13/6. Citrus: Vals., flats, 5/- to 15/-; dumps, 7/- to 17/-. Lemons, flats, 4/- to 11/-. Stone Fruit: Plums, flats, Satsuma, 4/- to 10/-; Wickson, 5/- to 12/-; Burbank, 3/6 to 9/-; Santa Rosa, 7/6 to 9/-; Statesman, to 9/6; Climax, to 11/-; other varieties, 4/6 to 10/9. Peaches, flats, 5/- to 15/-. Apricots, flats, 6/- to 13/-; ½ dumps, 7/9. Nectarines, flats, 5/- to 16/-. Other lines: Pears, Bartlett, flats, 5/- to 8/6; other varieties, 3/- to 6/-. Grapes, open, white, 3/- to 10/6; closed, 1/- to 7/-; colored 3/- to 12/6. Passionfruit, 4/- to 8/-. Tomatoes, flats, 1/3 to 6/9.

QUEENSLAND.

Brisbane (20/1/38).—Messrs. Clark & Jesser report as follows: — The heavy supplies of stone fruit have been well maintained during the past few weeks. Ruling values are at present:—Apples: Grav. 2½, 2¾, 8/- to 9/-; 2¼, 5/- to 6/-; Jon., 7/- to 9/-; S.P.M., 7/- to 8/-, small sizes, 4/- to 5/-; G.S., 7/- to 8/-; Munro's, 4/- to 5/-. Pears: W.B.C., 7/- to 8/-; Clapp, 6/- to 7/-. Oranges: Vals, 11/- to 13/-; second crop, 5/- to 7/-. Lemons: 14/- to 16/-. Peaches: 2/6 to 3/6. Plums: Angelina's, 7/ to 8/-; Burbank, 4/- to 5/-; Black Diamonds, 2/6 to 3/6; Narrabeen, 5/- to 6/-; Pond Seedling, 5/- to 7/-; Giant Prune, 3/- to 4/-. Papaws: 2/6 to 3/6 dump case. Pineapples: 8/- to 9/- case. Bananas: 13/- to 15/- case. Tomatoes: 4/- to 5/- case.

NEW ZEALAND.

Dunedin (14/1/38). — Messrs. Reillys Central Produce Mart Ltd. report that during the week fair supplies of all lines of fruit and produce have been received.

Increased supplies of Apples, consisting of Gravensteins, Beauty of Bath, and Red Astrakans have been received, the demand, however, is only fair.

In stone fruits, Peaches are on the short side. Early varieties of Apricots are more plentiful, and larger supplies of Plums and Nectarines are being received. Values for stone fruits show a considerable improvement, and good quality lines are netting satisfactory values. Increased supplies of Pears are also to hand.

Strawberries are still arriving, and netting fair values. Black and Red Currants have a good demand at higher prices. Smaller supplies of Raspberries are now coming to hand, and values for good quality are much firmer.

There is an excellent demand for Tomatoes, and prices remain firm.

Oranges are meeting with a better sale. A further large shipment of Jamaican fruit is due by the "Port Jackson" this week.

A shipment of Niue and Samoan Bananas arrived ex the "Maui Pomare" and met with a satisfactory demand. Ripe Bananas are selling well.

Prices (Per Case): Australian Oranges: Vals, 18/- to 22/-; Cal. Lemons: 75/-. Grapefruit: 35/-. Grapes: Emperors, 15/-. Jamaican Oranges: 25/- to 27/6. Jamaican Grapefruit: 32/6. Bananas: Ripes, 25/-. Pines: To arrive. New Season's Apples: Grav., 6/- to 9/-; Astrakans, 7/- to 8/-. Per Half Case: Nelson Tomatoes: 6/- to 10/6. Peaches: 2/6 to 6/6. Apricots: 2/9 to 6/-. Nectarines: 3/6 to 4/6. Plums: 3/6 to 5/6. Cherry Plums, 3/6 to 4/6. Jargonelle Pears: 3/- to 4/-.

Western Australia

Apple and Pear Crops Reduced

Fruit crop estimates in Western Australia formed the subject of a report to the Under Secretary for Agriculture by Mr. Geo. W. Wickens, W.A. Supt. of Horticulture.

Mr. Wickens' comments are as follows:—

Since I returned from the Fruit Conference in Sydney in early November I have spent a considerable time visiting orchards in various parts of the State for the purpose of estimating the fruit crop for the coming season, and so far as **Apples** are concerned I must admit it has been more difficult this season than for many years past, the reason being that the crop, though light, is irregular, i.e., in all disricts there are some orchards carrying heavy crops of Apples, while in the same districts there are orchards with half crops, quarter crops, and almost failures.

Two of the reasons which have been put forward for the partial failure are thrips and frost, but I am personally of the opinion that **the trees are having a rest.** In August last, when I returned from a tour of the Apple-growing districts, I reported that the Apple crop was definitely going to be a light one, as the fruit buds, though plentiful, were pinched, lacking in size and proper conformation, and there is no doubt the heavy crops of 1935, 1936 and 1937, together with drought conditions which obtained in 1936 and 1937, had a detrimental effect on the trees, which was reflected in a partial crop failure.

Of the commercial varieties I estimate that Jonathans are carrying 20 per cent. of a full crop, Dunns 20 per cent., Cleos. 60 per cent., Yates 60 per cent., with Granny Smith a full crop, and that the total quantity of Apples will be between 800,000 and 850,000 cases. So far as the Apple trees themselves are concerned I have never seen them in better heart, and it does not need much imagination—provided that no acts of God, such as thrips, eventuate—to forecast that next season's Apple crop will be somewhere between 1¾ million and two million cases.

The Pear crop is also lighter than last year, but not to the same extent as Apples. Bartletts are medium to good, Josephine, Packhams and Winter Nelis medium, and Comice distinctly light.

With stone fruits, Apricots are carrying a heavy crop; Peaches good, and Plums light.

With reference to the kinds of fruit mentioned above, my estimate of this year's production, compared with the actual production of last year, is as follow:—

Apples:
1936-37—1,045,369 cases.
1937-38—800/850,000 cases (est.).

Pears:
1936-37—101,472 cases.
1937-38—90,000 cases (est.).

Apricots:
1936-37—63,668 cases.
1937-38—70,000 cases (est.).

Peaches:
1936-37—67,373 cases.
1937-38—60,000 cases (est.).

Plums:
1936-37—86,593 cases.
1937-38—50,000 cases (est.).

The citrus trees are promising well, but it is too early in the season yet to make an estimate of the crop.

Grape vines are as usual carrying good to heavy crops, which includes table Grapes, wine Grapes and Grapes for drying.

PURE FRUIT JUICES.

Their Importance is Realised in Europe.

PURE FRUIT JUICES are being used on the Continent of Europe to an enormous extent—far greater than is realised by the average Australian citizen.

For instance, in Germany the only methods of manufacture of fruit juices permitted are those which have been proved satisfactory—**the juices must be natural and pure.**

Collecting stations collect the fruit crop, which is then uniformly assorted. Distribution is controlled by a central office.

Regulations regarding the professional efficiency of the proprietor and employees, adequate plant equipment, satisfactory quality of the products, and the beginning of the pressing period are rigidly enforced.

The quality of the fruit and fruit juice and the management of the plants are carefully supervised.

The result of these disciplinary methods is the strengthening of confidence of consumers, and therefore increase in sales.

Poultry Notes

SHELL GRIT FOR POULTRY.

A Seasonable Reminder.

THE POULTRY FARMER should pay special attention to the supply of grit to the birds; any shortage of this shell-forming material, particularly at the present time, will soon be reflected in a marked falling off in laying and faulty egg shells. The grit should be of good quality, and neither too large nor too fine, states the N.S.W. Department of Agriculture.

Many poultry keepers have an idea that, as grit is more or less essential for the digestion of the food eaten by the birds, any sort of grit—ironstone, quartz, or other such substances—is all that is necessary. This, of course, is wrong. In some cases they read that lime is essential for supplying shell-making material, and straightaway resort to giving them burnt lime. This material is harmful.

The

Primary Function of Grit

is to supply shell-making material, and for this purpose none of the substances mentioned are of any use, and burnt lime is absolutely harmful. Lime in its burnt state should never be given to poultry, nor can the practice of putting it into the water be commended.

An egg-shell is composed principally of carbonate of lime, potash, soda, magnesia, calcium and oxide of iron. The two last-named are available in most soils, but the others only in infinitesimal quantities. When a hen is in full lay, a very large quantity of shell has to be made, and the necessity for an unlimited supply of this material is obvious. Either sea shell or oyster shell, crushed to a suitable size, will answer the purpose, but a combination of one-third by measure of the oyster shell to two-thirds of the sea shell appears to give the best results; given these, all purposes are served.

The right way to supply shell grit is to place it in receptacles in the yard or pens, where the birds always have access to it, and the supply should never be allowed to run out.

When shell grit is used in the nests, it is advisable to place some in a separate receptacle as well.

HEALTH GRIT.

At this time of the year the provision of health grit is important, as it tends to keep the birds healthier during the warm weather, and naturally helps egg production. Health grit should be composed of flint grit, oyster shell, broken bone and broken charcoal, which you have to put in tins where rain will not get at it, but out of which the birds can help themselves.

It is rather interesting when show committees supply health grit, to notice the large amount the birds eat, proving that the supply is not attended to by the owners; and you cannot blame the birds if they do not lay well when you do not give them the proper ingredients to make eggs.

SETTING A BROODY HEN.

When it is certain that a hen is broody, a nest should be prepared for her.

The bird should then be allowed to settle down quietly on this nest, giving her a few dummy eggs, until one is quite sure she is sitting well.

The eggs she is intended to hatch may then be placed under her, preferably in the evening.

SEASONAL REMINDERS.

If crop trouble is suspected, prompt action may effect a cure without the need of an operation. The bird can be placed on its own and be given milk to drink for a day, when the obstruction is often cleared.

Remove and market culls weekly, Hens that are only laying enough to keep themselves at this time of the year are useless.

Good layers have tight feathering, there being little surplus after making egg yolks to develop a superfluity of feathers.

Be sure that your birds always have plenty of cool, fresh water, easily accessible. Summer is hard on fowls.

When standing by at feeding time always pick up a young bird or two for handling. One can then obtain an accurate idea of how they are getting along.

Good condition will show that there is nothing wrong with health or feeding, but if the birds are being improperly fed they will lack size and flesh. These essentials are best judged in the hand and not by the eye

If possible, feed onions once weekly as they are one of the best tonics to feed in the summer time.

TO WASH OUT A CROP.

To wash out the crop of a bird that is suffering from sour crop, get a small rubber rectal tube from the chemist and attach a funnel at one end. Take the bird under the arm, pass the tube through the mouth into the crop. Hold up the funnel and get someone to pour in a solution of bicarb. soda until the crop is full, then reverse the bird and while pressing the crop gently, allow the fluid to run out.

PIGEON ENGLISH.

Clergyman (to father who had just had his baby christened Homer): "I suppose Homer is your favorite poet?"

Father: "Poet! Lor, no sir! I'm a pigeon fancier."

SPECIAL NOTICE TO FRUITGROWERS

All Members under Fidelity Bond

In response to numerous requests from growers for information as to who are members of the

Wholesale Fruit Merchants' Association of Victoria

the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESES.

T. STOTT & SONS (26).
H. L. E. LOVETT & CO. (23).
A. E. PITT (14).
J. DAVIS PTY. LTD. (8).
W. S. TONG (31).
SILK BROS. PTY. LTD. (24-25).
J. G. MUMFORD (35).
GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).
J. W. ROSS (13).
H. M. WADE & CO. (21).
DAVID SMITH PTY. LTD. (3).
SILBERT, SHARP & DAVIES PTY. LTD. (17)
WATKINS FRUIT COMPANY PTY. LTD (5)
P. A. PATRIKEOS (36).
G. WOOLF & SONS (29-30).
R. CORNISH & SONS (5).
J. HYMAN & SON (51).
HERBERT WILSON PTY. LTD. (10).
FRANK BOOTH & SONS PTY. LTD. (16).
GEO. LISTER PTY. LTD. (12).
TIM YOUNG & CO. PTY. LTD. (18).
F. W. VEAR PTY. LTD. (28).
YEE HOP LOONG & CO. (32).
H. LOUEY PANG & CO. PTY. LTD. (4).
WING YOUNG & CO. (38).
D. MENTIPLAY & CO. PTY. LTD. (27).
PRICE & KING PTY. LTD. (2).
REGAN & KENNY (Successors to Wm. Sweeney). (33).

Correspondence is invited by the Association.

Office : **21 Wholesale Fruit Market, Queen Street, Melbourne. Phone F 4866.**

Printed by the Horticultural Press Pty. Ltd. for the Fruit World Pty. Ltd., 78a Victoria St., Melbourne. Phones: F 2656, F 2657; and at 439 Kent St., Sydney.

Strawberry Culture

Hints from Queensland

At the present time, two Strawberry cultural matters are due for consideration: (1) The treatment of old beds for next year's crop; and (2) Runner production for next year's planting, states Mr. W. G. Hancock, Fruit Branch, Queensland Department of Agriculture, in the Department's Journal.

The peculiarities of the Strawberry in forming new main roots from higher parts of the stem is often overlooked, but nevertheless it is a very important characteristic which should be taken into account. The cultivated Strawberry has inherited this habit from its woodland ancestors, which every year after cropping in the Summer were half buried by the Autumnal fall of leaves from the trees above them. Thus, after the strain imposed upon the plants by the crop, they are annually reinvigorated by the leaf mulch.

In applying this to Queensland, it requires to be kept in view that, under European conditions, the Strawberry fruits in the Summer and rests during the Winter; while here it fruits during the Winter, and subsequently undergoes, to it, very trying conditions during Summer. In addition, therefore, to providing a medium to support the freshly-forming roots,

A Thick Mulch

will keep the top of the soil cooler and moister during the Summer, and thus help to offset the rigours of a sub-tropical Summer on a temperate plant. **The result will be stronger plants for next year's crop, and better and stronger runners for next year's planting.**

On the question of runner production for next year's planting, in most countries what is referred to as runner deterioration has been noted, and an improvement in the quality of plants with a view to arresting this tendency has been sought.

It has been definitely confirmed that a restriction in the number of runners per plant results in the production of better runners for planting out, and better fruit production. Five should be the general rule. An authority goes so far as to recommend that (1) a special bed be planted for runner production; (2) after the plants have become established, all weak, diseased or abnormal plants be pulled out; (3) pick off the blossoms as they form; (4) allow five runners to each plant and stop after the first runner plant.

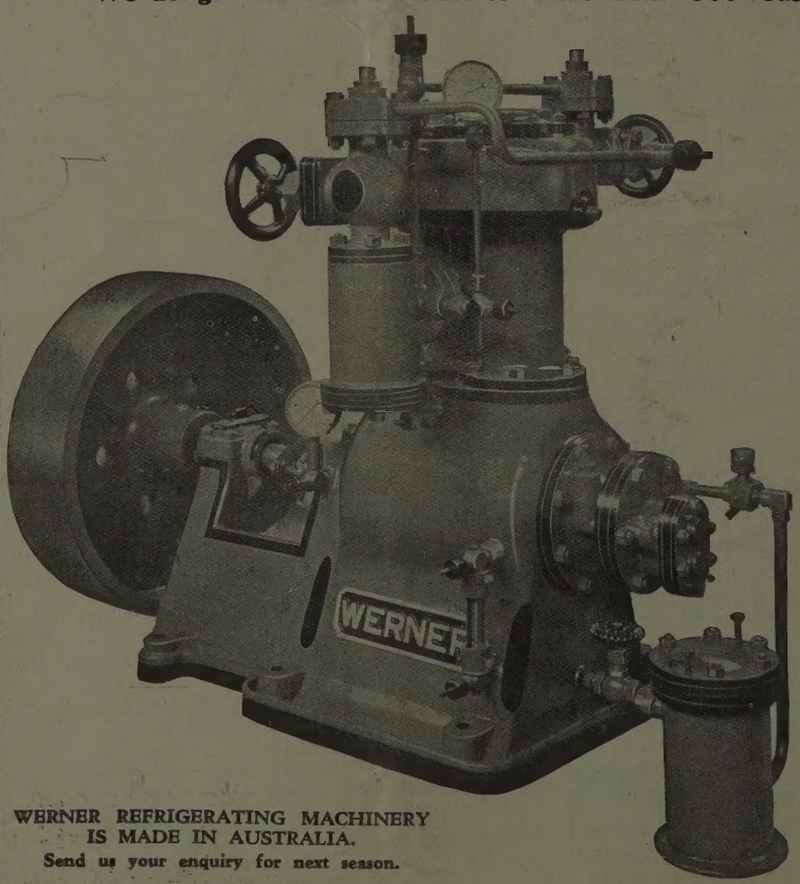
Manuring, Mulching Watering.

Strawberry growers would do well to give these recommendations a trial next year. Meanwhile measures should be adopted to keep the plants strong and healthy with the object, firstly of having the old plants in better shape next year for cropping, and, secondly, to encourage the formation of strong runners for future planting. These consist of (1) clean-up and cultivate old beds; (2) fertilise; (3) draw up the soil to the plants and mulch with leaf mould or litter; (4) restrict the runners to five and stop after the first runner; (5) keep the beds free from weeds and irrigate when necessary, so that the plants shall not suffer from lack of moisture.

"WERNER" PLANTS Refrigerate Over 1½ Million Cases

of Fruit in over 60 Stores throughout the Commonwealth

We design and Install Plants to Store from 500 Cases upwards



Enclosed Type Ammonia Compressor *Suitable for* Full Automatic Control

Direct Expansion or Brine Circulation

Type of Compressor made by Werner from 10-ton upwards.

WERNER REFRIGERATING MACHINERY IS MADE IN AUSTRALIA.
Send us your enquiry for next season.

R. WERNER & CO. PTY. LTD.

Refrigerating Engineers

54-86 BURNLEY STREET, - - RICHMOND

'Phones: J 1161 (6 lines)

CITY SHOW ROOM: 610 LITTLE COLLINS STREET, MELBOURNE. Phone: MU 6275

AGENTS:—

N.S.W.: R. J. LINDSAY, 99 Kippax St., Sydney.

S.A.: W. J. WHITE, 3 Trevelyn Street, Wayville

W.A.: ATKINS (W.A.) LTD., 894 Hay Street.

DIGGING OF BANANA SUCKERS.

Need for Careful Removal from Stool.

BANANA suckers selected for transplanting or for sale should be most carefully removed from the stool, and this is not always easy when they are dug from plantations with stiff soils or boulder-strewn surfaces, or from some young areas, advises "N.S.W. Agricultural Notes."

The difficulties of digging are further increased when the correct practice of leaving those suckers farthest away from the stool as "followers" to the parent plants is adhered to. The utmost attention is required to see that neither the parent plant and its roots, the remaining suckers nor the chosen suckers are unnecessarily injured. Although every precaution may be taken to prevent losses, it is so easy to damage suckers that there is always a percentage which gets injured in the digging, and some are totally destroyed. All badly mutilated suckers should be rejected on the spot, and no offset that the grower would not be prepared to plant himself should be included when digging for sale.

The hoe and mattock are not the most satisfactory tools with which to dig suckers, but are useful to loosen the soil or undermine the offset on the open side when such is necessary. A crow-bar is a much more suitable implement, but where any quantity of digging is being done, a specially made bar with a long, flat and wide blade and keen edge is even better, for there is less likelihood of causing damage with this implement. The bar should have a good fall and it will be found more convenient for working if it is bent at right angles where it commences to flatten out.

The surface soil should be removed or freed sufficiently to enable the grower to see where the sucker and parent plant join, and the implement then placed where the union is narrowest (to lessen the surface to be cut) and forced firmly downwards to sever the offset with one clean cut. With the larger suckers it is necessary to aim the crowbar at this spot from a distance, and unless the operator has a good and true eye it is likely that the sucker may not be severed at the correct place or that it will receive more than one wound. In other cases suckers in awkward positions have to be dug from both sides, which increases the cut surface.

Where leverage is necessary in removing the sucker, it should be applied gently and gradually to obviate crushing or bruising the plants, and no more force should be used than is required to loosen the sucker.

Growers should see that the digging of suckers is carried out only by persons who recognise what the results of negligent or careless digging are, both in loss of good suckers and damage to the existing plantation.

FROST PREVENTION IN U.S.A.

Machine for Generating Air Currents.

A ventilating machine designed to prevent frost damage has been developed in Florida, U.S.A. As frost occurs when there is little, if any, circulation of air, the new process, for which a patent has been applied, is that of the generation of air currents. The machine is stated to be simple in design, economical and effective. It can be operated with electricity or motor power. From early reports the machine was designed to deal with ferneries and market gardens.